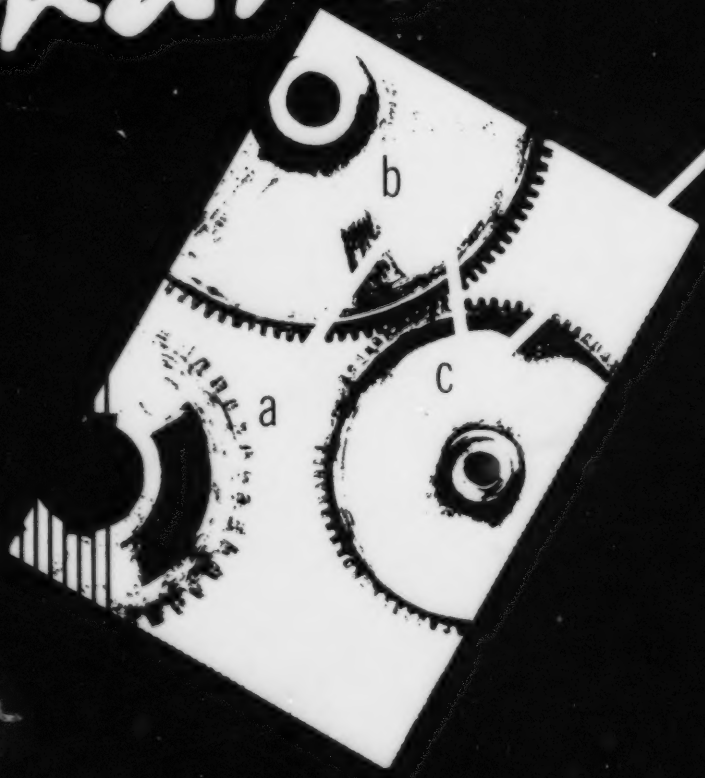
project procedures manual



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17. Abstract

Designed to assist the staff of the Transportation Development Centre (TDC) with the management of research and development (R&D) projects, the TDC Project Procedures Manual presents the detailed procedures to be followed during the life-cycle of an R&D project, including: project identification and justification, resource allocation and authorization, contractor selection and contract award, project monitoring, and project completion.

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17. Résumé

Vise à aider le personnel du Centre de développement des transports (CDT) dans la gestion des projets de recherche et de développement. Le Manuel de gestion des projets du CDT décrit, point par point, la marche à suivre dans le développement normal d'un projet R&D, incluant : identification et justification du projet, affectation des ressources et autorisation, choix du contractant et passation du marché, suivi du projet et terminaison du projet.

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FOREWORD

The Transportation Development Centre (TDC) Project Procedures Manual was prepared to assist Project Officers in understanding and carrying out TDC procedures regarding the identification, definition, approval and management of technology development projects. It is the operational strategy of TDC that all in-house and contracted-out activities be identified as distinct projects, each having a written performance objective to be completed within a set time frame and a predetermined resource level. The project objectives, resources, schedule and other terms are set out in a project justification document prepared by the Project Officer, signed by the Division Chief and approved by the Executive Director.

It is the underlying philosophy of TDC that the Project Officer is wholly accountable for the performance of the project and achievement of the objectives within the agreed schedule and the approved resources.

This manual describes the procedures to be followed in the definition and management of transportation-related research and development projects and, where appropriate, refers to relevant policies, regulations and directives supporting these procedures.

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LIST OF ABBREVIATIONS*

ACD	Director General, Research and Development
ACM	Associate Assistant Deputy Minister, Policy and Coordination
ADMF	Assistant Deputy Minister, Finance (AF)
ADMPC	Assistant Deputy Minister, Policy and Coordination (AC)
AIP	Approval-in-Principle
APD	Approval-in-Principle Document
CADC	Crown Assets Disposal Corporation
CPCS	Canadian Pacific Consulting Services
CPDL	Canadian Patents and Development Ltd.
DGCT	Departmental General Counsel (AD)
DGRD	Director General, Research and Development (ACD)
DM	Deputy Minister (XM)
EDTDC	Executive Director, TDC (ZCD-Montreal)
MIS	Management Information System
PAD	Program Approval Document
PCB	Program Control Board
PJ	Project Justification Memorandum
R&D	Research and Development
RDF	Report Documentation Form
RFP	Request for Proposal
SA	Scientific Authority
SPM	Science Procurement Manager, SSC
SPEC	Structured Planning Evaluation and Control
SSC	Supply and Services Canada
TB	Treasury Board
TC	Transport Canada
TDC	Transportation Development Centre (ZCDGB-Montreal)
UP	Unsolicited Proposal

* Transport Canada routing symbols for internal correspondence are indicated in parentheses.

CHAPTER 1

INTRODUCTION

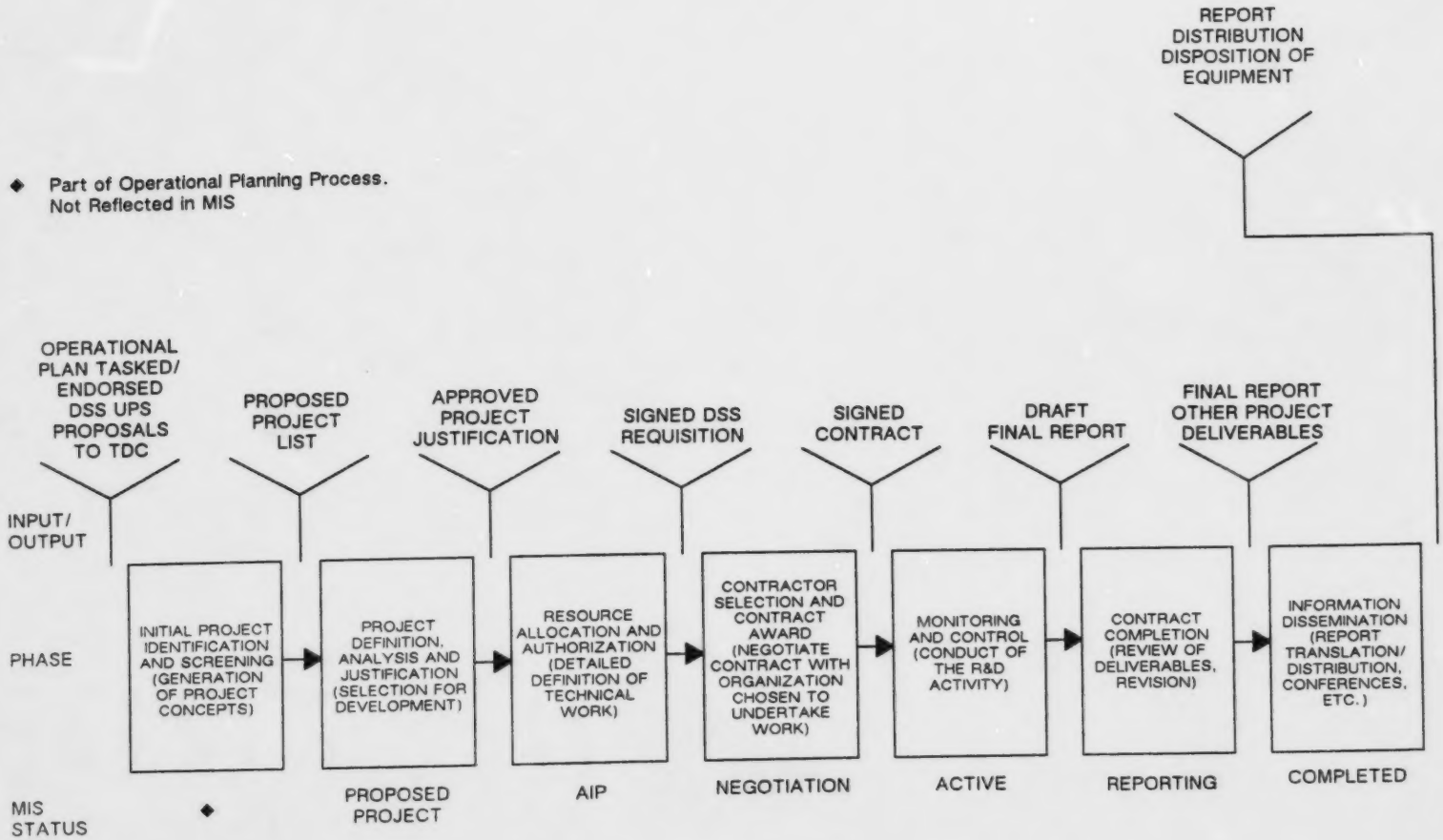

Figure 1 TDC Project Life Cycle

1.10 SCOPE

(see Figure 1)

This manual describes the procedures to be followed during the life-cycle of a project from identification to completion. The manual is organized to follow the natural development of project activities, emphasizing the need for consultation and authorization at each point for which a continued commitment of resources is required.

The body of the manual deals largely with the procedures themselves, whereas the appendices include:

- Examples of documents called for by the procedures (e.g. Project Justification Memorandum, SSC Requisition) together with detailed instructions on how to complete them.
- Directives relating to the procedure to be followed for project approval, depending on the level of authorization required for funding.
- Samples of standard responses to be used in the course of a project.

For the convenience of the reader, a list of abbreviations is included after the Table of Contents.

1.20 ORDER OF PRESENTATION

The manual is divided into six chapters, including an introduction. Each of the five remaining chapters describes a phase of the project development process.

Chapter 2: Project Identification and Justification Phase
Chapter 3: Resource Allocation and Authorization Phase
Chapter 4: Contractor Selection and Contract Award Phase
Chapter 5: Project Monitoring Phase
Chapter 6: Project Completion Phase

Each of these chapters is sub-divided into introductory material and procedures. The introductory material includes a description of the scope of the chapter, a brief TDC policy statement relating to the material in the chapter, and some background information describing, in part, the need for the procedures.

1.30 ADDITIONS AND REVISIONS TO PROCEDURES

Suggestions for revising and improving this manual should be directed, in writing, to Chief, Research Analysis and Special Programs.

It is the responsibility of manual holders to update their manuals as new policies and revised procedures are issued. The manual is designed to facilitate this process as well as provide a method for recording updates.

CHAPTER 2

PROJECT IDENTIFICATION AND JUSTIFICATION PHASE

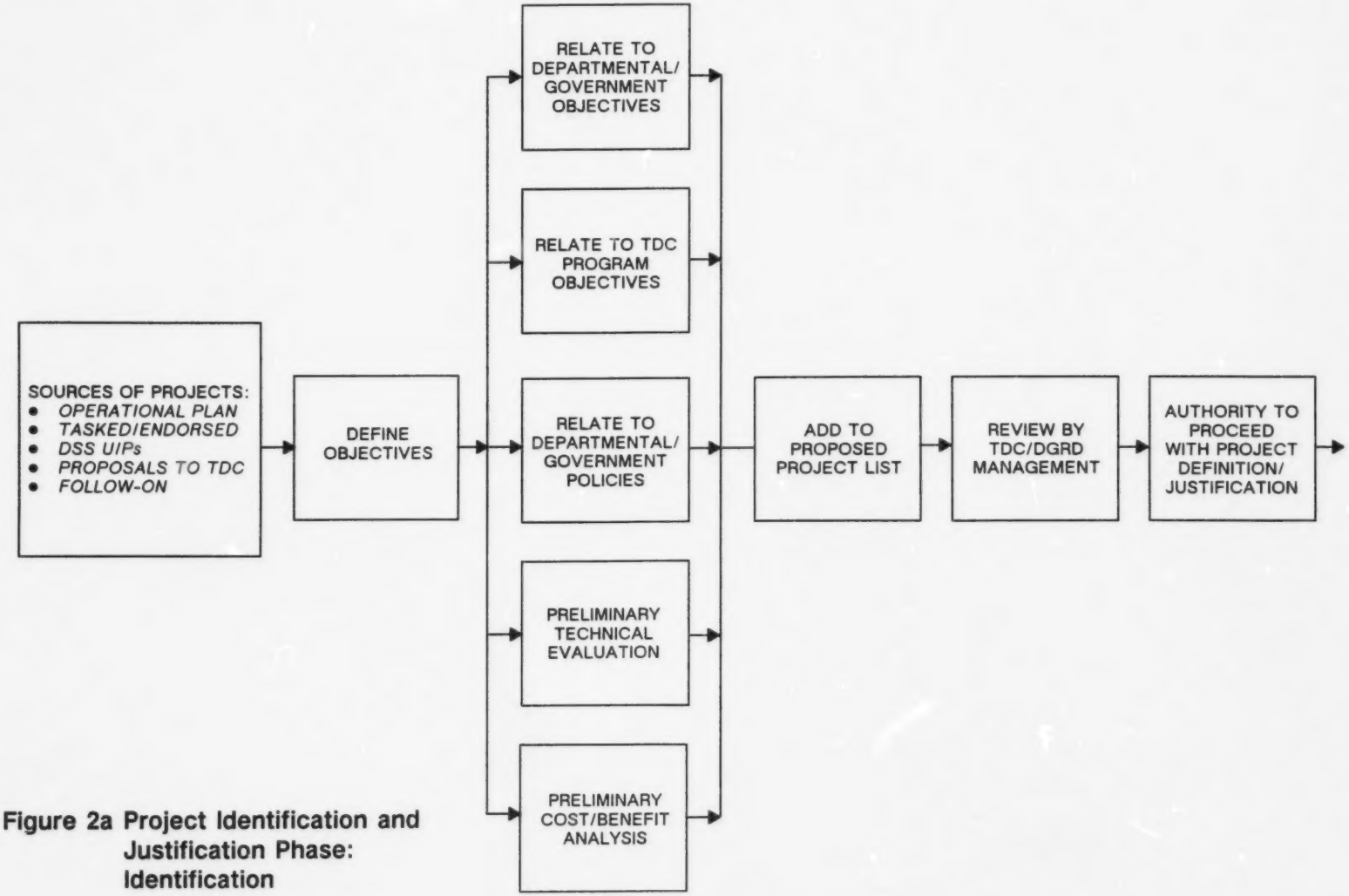

Figure 2a Project Identification and Justification Phase: Identification

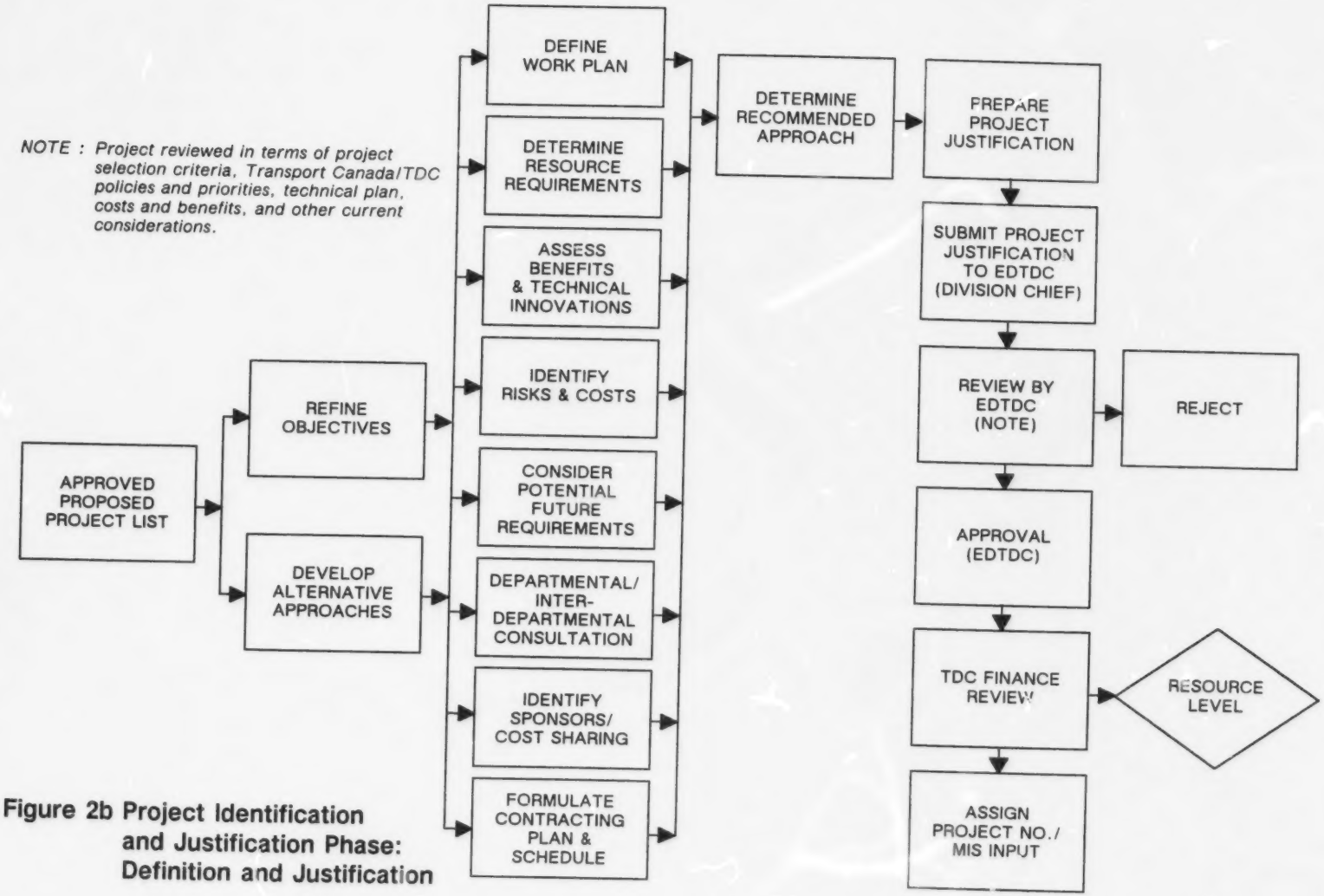

Figure 2b Project Identification and Justification Phase: Definition and Justification

SCOPE

(see Figures 2a and 2b)

This chapter describes:

- the various ways in which research and development (R&D) needs and opportunities are identified,
- the project definition process,
- the administrative recording of a project (entry into Records Office)
- the approval-in-principle process (TDC Project Justification Memorandum).

POLICY

There are numerous opportunities for undertaking transportation R&D projects, but available resources limit TDC involvement. Also, during the course of initial project definition, it is often necessary to negotiate with outside companies, others in Transport Canada (TC), and other departments regarding work content and funding. TDC management wishes to screen project proposals at an early stage to determine interest in the proposal and its relative priority before resources are expended in definition and before negotiations are entered into which may result in moral obligation on either the part of the Project Officer or TDC to proceed further.

Approval-in-Principle (AIP) by the Executive Director, TDC (EDTDC) of the Project Justification Memorandum (PJ) acknowledges that the project has been appropriately screened, and that its development into an operational project could fulfill a requirement not currently being met. It authorizes the Project Officer to continue the detailed planning necessary either to undertake the proposed R&D in-house, to initiate Request ofr Proposal (RFP) documentation for Supply and Services Canada (SSC), or to obtain the authorization necessary to procure the proposed R&D requirement through Treasury Board submission, Approval-in-Principle Document (APD) or Program Approval Document (PAD).

BACKGROUND

The identification of new R&D projects originates from a number of sources:

- TDC's Operational Plan,
- TC components,
- modal advisory boards,
- agreements with other levels of governments,
- private sector unsolicited proposals (UPs) via SSC,
- proposals sent directly to TDC,
- co-sponsoring arrangements with major operator,
- follow-up from previous projects,
- TDC Project Officers.

TDC's project screening procedure varies according to the source but, in general, will fall into one of three categories:

a) projects identified within TDC,

b) UPs sent directly to TDC,

c) UPs sent to TDC from SSC.

PROCEDURES

2.10 SCREENING PROJECT IDEAS INITIATED WITHIN TDC

Responsibility	Action
Project Officer	1. Discuss project idea with Division Chief and/or Modal Coordinator.
	2. Prepare supporting documentation describing: — project objective, — source of idea, — scope of proposed project, — order of magnitude of cost. **NOTE: TDC's exploration of specific technology ideas at this stage is TDC confidential.**
	3. Enter project into the computer listing of proposed TDC projects (see Appendix 2-1).
TDC Management, DGRD	4. At quarterly meeting, review Proposed Project List with respect to the following criteria: — Contributions to government/department objectives, — Contributions to TDC program objectives, — technical merits and uniqueness, — project priority, — eligibility for cost-sharing with other organizations, — complexity of implementation.

EDTDC	5. Advise Division Chief and Project Officer of future action on project by completing the action column of the Proposed Project List as follows: — proceed with preparation of project justification, — or reject and/or refer elsewhere, — other relevant comments.
Project Officer	6. Make preliminary investigation of project, including: — review and evaluation of alternative solutions, — discussions with colleagues, Modal Coordinators and/or Division Chiefs, — a literature search through TDC library to determine whether research has already been carried out in the field.
	7. Undertake inter- and intra-departmental consultations to: — determine possible areas of common interest, — take advantage of data already available, — consider potential for cost-sharing, — resolve jurisdictional concerns, e.g. industry and trade development, regional economic development, energy content, etc.
	8. Direct secretary to obtain file number from Records Office (see section 2.40).
	9. Prepare a PJ (see Appendix 2-4) and route for approval, as outlined in section 2.50, with relevant supporting documentation attached.

2.20 SCREENING PROPOSALS SENT DIRECTLY TO TDC

Contractors are to be encouraged to send UPs to SSC because of the availability of bridge funding and/or coordination benefits vis-a-vis other departments.

Responsibility	Action
All TDC staff	1. Direct all R&D project proposals to EDTDC for review and acknowledgement.
Secretary EDTDC	2. Send letter of acknowledgement to proposer (original, action copy, file copies) (see Appendix 2-2a).

3. Enter project on Proposed Project List submitted to TDC, and track progress of proposal through TDC (see Appendix 2-1).

4. Forward proposal using routing/action slip (see Appendix 2-3a).

Modal Coordinator

5. Review the proposal and determine if it appears to satisfy the criteria for support by TDC. Add comments and recommend action on routing/action slip and pass to Division Chief.

Division Chief

6. Review the proposal and determine if it appears to satisfy the criteria for support by TDC.

7. Reject or add relevant comments to the routing/action slip and forward to the Project Officer for more detailed analysis.

Project Officer

8. Investigate the project and indicate comments on routing/action slip or, if necessary, prepare a brief memorandum to the Division Chief recommending rejection or acceptance. Specify if acceptance is contingent on modifications to the proposal.

Division Chief

9. Check with the appropriate TC component to determine interest and discuss possible tasking.

10. Recommend TDC's position to EDTDC, based on discussions with the TC component, the Modal Coordinator and the Project Officer. Possible TDC recommendations are:
    - interested in sponsoring,
    - would only undertake if tasked,
    - not interested in sponsoring,
    - not within TDC's mandate (refer elsewhere).

EDTDC

11. Review the recommendation and determine TDC's position in consultation with Director General, Research and Development (DGRD) and TDC managers. This may be done during quarterly review of proposed projects (see section 2.10, items 4 and 5) or on an individual basis.

12. Advise Division Chief of review results.

Division Chief

13. Prepare a reply to the proposer for EDTDC's signature (see Appendices 2-2b, 2-2c).

14. Assign a Project Officer if work is to continue.

15. Direct secretary to obtain file number from Records Office (see section 2.40).

Project Officer	16. Prepare a PJ (see Appendix 2-4) and route for approval (see section 2.50), with relevant tasking memoranda and supporting documentation attached.

2.30 SCREENING UPS SENT TO TDC FROM SSC

Responsibility	Action
SSC	1. Send one copy of the unsolicited proposal to the TDC UP Coordinator and one copy to the appropriate TC component.
TDC Administration	2. On receipt of the proposal from SSC, prepare a UP file and forward it to the TDC UP Coordinator.
TDC UP Coordinator	3. Contact the appropriate TDC Modal Coordinator to discuss who should be approached to evaluate the proposal. Forward file, with routing/action slip, to Modal Coordinator (see Appendix 2-3b).
	4. Maintain record of UPs progress through TDC.
Modal Coordinator	5. Review the UP in light of TDC's operational plan and current priorities and route the UP to the appropriate Division Chief.
Division Chief	6. On receipt of the UP, review the proposal and determine whether it satisfies TDC's project selection criteria. (Refer to TB Policy and Guidelines on Contracting out Government Requirements in Science and Technology, Section G, April 1977 and TB Policy and Guidelines on Contracting out in the Government of Canada, Objectives and Requirements Definition Phase, June 1975).
	7. Reject or add relevant comments to the routing/action slip and pass the UP on to the appropriate Project Officers for more detailed analysis.
Project Officer	8. Investigate the project and indicate comments on routing slip or, if appropriate, prepare a brief memorandum to the Division Chief recommending rejection or acceptance of the UP. Specify if acceptance is contingent on certain modifications to the UP.
	9. If accepted, have project entered into Proposed Project List.
Division Chief	10. Recommend TDC's position to EDTDC, based on discussions with the TC component, the Modal Coordinator and the Project Officer. Possible recommendations are:

— interested in sponsoring,
— would consider being tasked,
— not interested in sponsoring,
— not within TDC's mandate (refer elsewhere).

11. If a project requires TC commitment, have Project Officer prepare draft project justification for discussion with EDTDC before the UP meeting.

EDTDC

12. Review the recommendation and determine TDC's position, taking into account the source of funds and all other relevant factors.

13. Advise Division Chief and Modal Coordinator of review results.

Division Chief

14. Advise the TDC UP Coordinator of TDC's position and of TDC's participation at the SSC UP meeting.

TDC UP Coordinator

15. Reconcile the TDC position with that of the TC component involved and advise SSC if there is an interest in meeting to discuss sponsoring. Arrange for attendance at UP meeting if required.

16. Inform all parties involved in the proposal assessment of the decision reached at the UP meeting.

TDC Representative

17. Advise Division Chief, Modal Coordinator, UP Coordinator and EDTDC of the meeting results.

SSC

18. Proceed according to one of the following:
— send letter of acceptance in principle to the UP source,
— send letter of rejection to the UP source.

Project Officer

19. Direct secretary to obtain file number from Records Office (see section 2.40).

20. Complete the SSC requisition and SSC Request for Bridge Funding Form, if applicable (see Chapter 4).

21. If the proposal has been accepted, prepare a PJ (see Appendix 2-4) and route for approval (see Section 2.50). Attach relevant tasking memoranda and supporting documentation.

2.40 REGISTERING A PROJECT IN THE RECORDS OFFICE

Responsibility	Action
Project Officer	1. Direct secretary to open a Records Office file by completing form TDC/CDT 82-001 (see Appendix 2-5).
	2. Use assigned file number on all correspondence and other relevant documentation.

2.50 PREPARING A PROJECT JUSTIFICATION MEMORANDUM (PJ)

The Project Justification Memorandum (PJ) (see Appendix 2-4) is the formal document used to obtain EDTDC's approval to proceed with implementation of projects within EDTDC funding approval limits, or to prepare an Approval-in-Principle (APD), Program Approval Document (PAD) or other approval documentation if project costs exceed EDTDC limits. It covers such alternatives as:

a) commencement of work for in-house projects,

b) preparation of one or more of the following documents:
   i) Treasury Board submission (see Chapter 3, section 3.20),
   ii) APD or PAD submission (see Chapter 3, section 3.10),
   iii) SSC requisition for RFP or contract (see Chapter 4, sections 4.10, 4.30, 4.40),
   iv) Inter- and intra-departmental agreement (see Chapter 4, section 4.10),
   v) Contribution Agreement (see Chapter 4).

NOTE: The above actions depend on the financial value and/or circumstances of the project. Financial authority levels and other current directives relating to EDTDC Approval-in-Principle (AIP) are to be obtained from TDC Finance (see Appendix 2-6).

Responsibility	Action
Project Officer	1. Prepare PJ (see Appendix 2-4). Ten copies of the PJ are required for projects using in-house funding sponsors; eight copies are required for other projects.

2. Determine the project steering committee requirements (see section 5.10).

3. Identify the planning techniques to be used. If Canadian Pacific Consulting Services Structured Planning Evaluation and Control (CPCS SPEC) services are to be used contact Chief, Research Analysis and Special Programs (see section 5.30).

4. Ensure full description of the extent of the commitment to be undertaken by attaching supporting documentation such as tasking memoranda and cost-sharing agreements.

5. Complete information on Request for Approval-in-Principle Routing/Action Slip (see Appendix 2-7a), with the exception of the TDC project number, and attach to routing folder. The four-character modal sub-objective number should be assigned in consultation with the Modal Coordinator.

6. Submit all copies of PJ in folder to Division Chief.

Division Chief

7. Review PJ and, if acceptable, sign. If modifications are required, return to Project Officer for revision.

8. Submit all copies of PJ to EDTDC.

EDTDC

9. Review PJ and, if acceptable, add signature of approval, date memorandum and stamp copies. In case of conditional acceptance, outline the conditions for acceptance in a memorandum and indicate "conditional" approach on the PJ. If unacceptable, reject.

10. Forward copies of accepted or conditionally accepted PJ to Project Officer and Modal and TDC Funding Coordinators.

11. Forward PJ in folder to TDC Finance.

TDC Finance

12. Assign project number to all projects approved by EDTDC and add project number to routing/action slip. Artificial project numbers assigned to project sponsors are to be handwritten above the name of the sponsors on the Sources of Funds table.

13. Enter project data into Management Information System (MIS) (see section 2.60).

14. Route all remaining copies of PJ in folder to Division Chief for information purposes.

Division Chief

15. Note any written comments on routing slip and PJ.

16. Forward copies of PJ to the division secretary to ensure copies have been distributed to the Modal and TDC Funding Coordinators. File as necessary.

17. Forward folder containing remaining PJ copies and routing slip to Project Officer.

Project Officer

18. Initiate the next phase of the project on the basis of the approved implementation strategy, e.g.:
    - commence work for in-house project,
    - using PJ as the base, complete documents for APD/PAD or Treasury Board Submission (see Chapter 3),
    - initiate DSS requisition (see Chapter 4).

19. Remove project from Proposed Project List once MIS record has been established.

2.50.1 Terminating a Project after Approval but before Contract Signing

Responsibility	Action
Project Officer	1. Prepare a letter from the Division Chief to EDTDC explaining the reasons for the proposed action.
	2. Complete information on Request for Approval-in-Principle Termination routing/action slip (see Appendix 2-7b). Write "TERMINATE" on slip and attach to letter. Send to Division Chief.
Division Chief	3. Review and sign letter to indicate approval of action. Send file to EDTDC.
EDTDC	4. Review and sign as approved, route to TDC Finance.
TDC Finance	5. Delete project from MIS and advise Project Officer by returning signed routing/action slip.

SUPPLEMENTARY PROCEDURES

2.60 MANAGEMENT INFORMATION SYSTEM (MIS)

The Management Information System (MIS) is a computer-based project information system maintained by TDC Finance to monitor, report and control projects, and support TDC management. A description of the system and its uses is given in the MIS Documentation Manual.

2.60.1 Entering Project Information into the MIS

TDC Finance assigns a project number to all projects approved by EDTDC. TDC Finance then transfers information taken from the PJ and its routing/action slip into the MIS system. All information on these original documents must be clear and concise.

The major MIS definition of a project is provided by the Project Officer on the MIS Project Entry Form (see Appendix 2-10) when the contract is to be awarded, and is updated monthly by the Project Officer through TDC Project Status Reports (see Chapter 5).

2.60.2 Data Entry Feedback Form

The MIS produces a printout of the information provided by the Project Officer on the MIS Project Entry Form (see Appendix 2-10) on a Data Entry Feedback Form (see Appendix 2-11), after the contract is awarded. The Data Entry Feedback Form is used to revise MIS project information, to provide a concise reference document for TDC projects, and to satisfy various information requests by the Project Officers, and senior TDC and TC management. An explanation of the categories on the form is given in the instructions for completing the MIS Project Entry Form (see Appendix 2-12).

CHAPTER 2
APPENDICES
PROJECT IDENTIFICATION AND JUSTIFICATION PHASE

Appendix 2-1	Proposed Project List
Appendix 2-2a	Letter of Acknowledgement: Sample
Appendix 2-2b	Letter of Response Rejection: Sample
Appendix 2-2c	Letter of Response Acceptance: Sample
Appendix 2-3a	Project Proposals Submitted to TDC: Routing/ Action Slip
Appendix 2-3b	Status of Unsolicited Proposals: Routing/Action Slip
Appendix 2-4	Project Justification Memorandum: Format and Sample
Appendix 2-5	TDC Records File Control Form
Appendix 2-6	Signing Authority Directive
Appendix 2-7a	Request for AIP: Routing/Action Slip
Appendix 2-7b	Request for AIP Termination: Routing/Action Slip
Appendix 2-8	List of Responsibility Centre Numbers
Appendix 2-9	List of TDC funding Sponsors and Modal Coordinators
Appendix 2-10	MIS Project Entry Form
Appendix 2-11	Data Entry Feedback Form
Appendix 2-12	Instructions for Completing MIS Project Entry Form
Appendix 2-13	List of TDC Contractors

TRANSPORTATION DEVELOPMENT CENTRE / CENTRE DE DEVELOPPEMENT DES TRANSPORTS

PROPOSED PROJECTS

AS OF 87/03/05

MODE : RAIL TRANSPORTATION

OFFICER	DESCRIPTION / STATUS	PROBABLE CONTRACTORS	EST$ COST	P.J.	EDTDC COMMENTS
AVNI	FURTHER DEVELOPMENT OF ADVANCED TRAIN CONTROL TEST BED SYSTEM. PROPOSAL RECEIVED 20/8/86 UNDER REVIEW. AWAITING DEMONSTRATION OF PRESENT WORK 5-6/2/87. REF. # -> 125	BC RAIL	350,000	10/86 13/87	THIS PROJECT WILL BE TRANSFERRED TO W. ROWAN FOR IMPLEMENTATION. PRIORITY #1
DIBBLE	ASSESSMENT OF THERMAL RESPONSE OF 'EMPTY' TANK CARS USING THERMAL MODEL IDENTIFIED AS A RESULT OF REQUEST BY RTC. I-IDENTIFIED IN OPS PLAN. REF. # -> 182	DAVIS/QUEEN'S	30,000	06/87	PRIORITY #2.
DIBBLE	RAIL TURNOVER STUDIES: INFORMAL REQUEST MADE BY CTC-RESEARCH TO USE TRAIN DYNAMICS SIMULATOR TO STUDY TRAIN DERAILMENTS. REF. # -> 70	DSL-DYN. SCIENCES	50,000	10/86 12/86 04/87	ENSURE CTC/RTC ENDORSEMENT. PROCEED WITH PROJECT DEFINITION. PRIORITY #2.
DIBBLE	RAILWAY WHEELCRACK DETECTION UP-S-613 WAITING FOR RE-SUBMISSION OF REVISED UNSOLICITED PROPOSAL BY SNC. REF. # -> 78	SNC	465,000	10/86 02/87 06/87	PRIORITY #1 PROVIDED TECHNICALLY SOUND PROSAL IS RECEIVED. MAXIMIZE DSS FUNDING. A GOOD TECHNICAL APPROACH HAVING PROMISE FOR IMPROVING SAFETY WILL BE ESSENTIAL TO PROCEED.
EKINS	PREPARE A BIBLIOGRAPHY WITH APPROPRIATE INDEXES ON RAIL WHEEL-SETS IN ORDER TO FACILITATE ACCESS TO INFORMATION ON THIS SUBJECT. REF. # -> 162	RFP	20,000	01/09 09/87	AN ATCS BIBLIOGRAPHY IS CONSIDERED A HIGHER PRIORITY AND IS INCLUDED IN THE OPERATIONAL PLAN. PRIORITY #3.
GORE	RAILWAY LEVEL CROSSING SAFETY IMPROVEMENT. REF. # -> 1	RFP	75,000	04/86 04/87	BETTER DEFINITION OF PROPOSED SAFETY IMPROVEMENTS IS NEEDED TO PROVIDE ANY USEFUL COMMENTS.
GORE	AUSTENTIC MANGANESE STEELS REF. # -> 175	QUEEN'S UNIVERSITY	50,000	03/87	REJECTED. NO FUNDS ARE AVAILABLE FOR FOLLOW-ON FROM THE CURRENT PROJECT.

Transports Canada
Transport Canada

Centre de développement des transports
Transportation Development Centre

Complexe Guy Favreau
200 ouest, boul. Dorchester
Suite 601, tour ouest
Montréal, Québec H2Z 1X4
Télex: 05-24713

Complexe Guy Favreau
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4
Telex: 05-24713

Votre référence / Your file

Notre référence / Our file

APPENDIX 2-28

Mr. John Doe
ABC Company
1234 Main Street
Any Town, Canada

Dear Mr. Doe:

Subject: (Title of Project)

This acknowledges receipt of your letter dated (date), together with the above proposal for which you request the Transportation Development Centre (TDC)'s financial participation in the amount of ($).

Your proposal is being reviewed by TDC's technical staff and as soon as the review has been completed you will be informed of the results.

Yours very truly,

Executive Director

Canada

Transports Canada
Centre de développement des transports
Complexe Guy-Favreau
200 ouest, boul. Dorchester
Suite 601, tour ouest
Montréal, Québec H2Z 1X4
Télex: 05-24713
Tél.: (514) 283-0000

Transport Canada
Transportation Development Centre
Guy Favreau Complex
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4
Telex: 05-24713
Tel.: (514) 283-0000

Votre référence / Your file

Notre référence / Our file

Mr. John Doe
ABC Company
1234 Main Street
Any Town, Canada

Dear Mr. Doe:

Subject: (Title of Project)

Your proposal on the above subject has been reviewed and I must advise you that (choose one of the following)

- the TDC mandate does not permit us to provide funding for the type of work proposed.

- work of a similar nature has already been undertaken, therefore we are unable to provide funding for your proposed project.

- (other explanation as may be appropriate - to some extent a rejection will require a 'custom' response).

We thank you for having submitted this proposal to TDC and look forward to working with you on other projects.

Yours very truly,

Executive Director

APPENDIX 2-2h

Canada

It's our year! in motion... in touch
C'est notre année! en mouvement...au courant

Transports Canada
Centre de développement des transports
Complexe Guy-Favreau
200 ouest, boul. Dorchester
Suite 601, tour ouest
Montréal, Quebec H2Z 1X4
Télex: 05-24713
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Transportation Development Centre
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200 Dorchester Blvd. West
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Telex: 05-24713
Tel.: (514) 283-0000

Votre référence / Your file

Notre référence / Our file

Mr. John Doe
ABC Company
1234 Main Street
Any Town, Canada

Dear Mr. Doe:

Subject: (Title of Project)

Your proposal on the above subject has been reviewed and we are pleased to inform you that the Transportation Development Centre (TDC) is interested in pursuing further with you the project proposed.

It is our intention to request the Department of Supply and Services (DSS) to initiate discussions with you concerning a contract to undertake the work. DSS should be contacting you on this matter within a few weeks.

It is to be recognized that this letter should not be interpreted as a contract, an offer to contract, or authorization to incur expenditures with respect to the above referenced proposal.

Yours very truly,

Executive Director

Canada

It's our year! in motion... in touch
C'est notre année! en mouvement... au courant

Transportation Development Centre
Centre de développement des transports

Routing Slip/Bordereau d'acheminement

PROJECT PROPOSALS SUBMITTED TO TDC/PROPOSITIONS DE PROJETS SOUMISES AU CDT

TO MINIMIZE DELAYS, PLEASE DELIVER BY HAND
POUR MINIMISER LES DELAIS, S.V.P. ACHEMINER
EN MAINS PROPRES.

DATE: September 24, 1987

Title of Proposal / Titre de la proposition: Laser Image Sensing for Rail Head Measurement

Total cost / Coût total: $350,000 - $400,000
$135,750 TDC
$135,750 CP

Proposed by / Propose par: CP Rail

Due Date: / Echéancier:

ROUTE TO ACHEMINER VERS (Name Nom)	RESPONSIBILITY RESPONSABILITE	ACTION	RECEIVED REÇU DATE	RECEIVED REÇU INIT	FORWARDED ACHEMINE DATE	FORWARDED ACHEMINE INIT
	EDTDC	Review - Route Révise/Achemine	24/9/87	G.K.	25/9	[illegible]
[illegible]	Modal Coordinator / Coordonnateur Modal	Review Comments Section 1 / Revoir Commentaires Section 1	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Division Head / Chef de Division	Nominate Project Officer(s) / Nommer agent(s) de projet	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Project Officer / Agent de projet	Recommend Action Comments Section 2(a) / Recommande action Commentaires Section 2(a)	[illegible]	[illegible]	[illegible]	[illegible]
	Project Officer / Agent de projet	Recommend Action Comments Section 2(b) / Recommande action Commentaires Section 2(b)				
	Project Officer / Agent de projet	Recommend Action / Comments Section 2(c) / Recommande action / Commentaires Section 2(c)				
[illegible]	Division Head / Chef de Division	Accept ☐ Reject ☐ Comments Section 3 / Accepte Rejete Commentaires Section 3	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	EDTDC	Approval / Approbation Comments Section 4 / Commentaires Section 4	[illegible]	[illegible]	[illegible]	NER
[illegible]	Division Head / Chef de Division	Information / Information	[illegible]	[illegible]	[illegible]	[illegible]
"	Modal Coordinator / Coordonnateur Modal	Information / Information	[illegible]	[illegible]	[illegible]	[illegible]
	Project Officer / Agent de projet	If Accepted Prepare (2) and reply for DDG's signature / Si acceptée Préparer (2) et réponse pour sig. du DDG / If rejected Prepare reply for DDG's signature / Si rejetée Préparer réponse pour signature du DDG				

Section 1 — Modal Coordinator / Coordonnateur Modal

Section 2 — Project Officer / Agent de Projet

(a) Recommend that proposal be accepted. See memo on file S.V.D.

(b)

(c)

Section 3 — Division Head / Chef de Division

Recommended as a 50/50 funded project between TDC & CP

Section 4 — EDTDC

Agreed to proceed as proposed. However should be preferred that TDC contract directly with Sensor Robot.

NER

APPENDIX 2-3b

Have requested copies for: R.V. MYERS - CSTA
BA JAMES - EMR

Transportation Development Centre
Centre de développement des transports

Routing Slip/Bordereau d'acheminement

STATUS OF UNSOLICITED PROPOSALS/ÉTAT DES PROPOSITIONS SPONTANÉES

TO MINIMIZE DELAYS, PLEASE DELIVER BY HAND
POUR MINIMISER LES DÉLAIS, S.V.P. ACHEMINER
EN MAINS PROPRES.

UP File Number: D-1450-5 T6-013
Numéro de dossier PS: UP/PS

Title of Proposal: Reduced Transit Bus Particulate
Titre de la proposition: Emissions Using Propane Injection

Total cost: $189,617.00
Coût total:

TDC receipt date:
Date de réception au CDT: December 5, 1986

DSS Notification date:
Date d'avis au MAS: January 13, 1987

Proposed by:
Proposé par: Toronto University

DSS Meeting Date & Time:
Réunion MAS, date & heure:

ROUTE TO: ACHEMINER VERS: (Name/Nom)	RESPONSIBILITY RESPONSABILITÉ	ACTION	RECEIVED REÇU DATE	RECEIVED REÇU INIT.	FORWARDED ACHEMINÉ DATE	FORWARDED ACHEMINÉ INIT.
SABOUNGKI	Modal Coordinator Coordonnateur Modal	Review / Comments Section 1 Révise / Commentaires Section 1			12/12	[illegible]
[illegible]	Division Head Chef de Division	Nominate Project Officer(s) Nomme agent(s) de projet	12/12/86	[illegible]	12/12	[illegible]
J. MERGAN	Project Officer Agent de projet	Recommend Action / Comments Section 2(a) Recommande action / Commentaires Section 2(a)			6/2	[illegible]
R. NISHIZAKI	Project Officer Agent de projet	Recommend Action / Comments Section 2(b) Recommande action / Commentaires Section 2(b)			6/2	[illegible]
	Project Officer Agent de projet	Recommend Action / Comments Section 2(c) Recommande action / Commentaires Section 2(c)				
[illegible]	Division Head Chef de Division	Accept ☒ Accepte Reject ☐ Rejete Comments Section 3 Commentaires Section 3	7/2	[illegible]	12/2	[illegible]
	EDTDC	~~Approval~~ / Comments Section 4 ~~Approbation~~ / Commentaires Section 4 Rejected	16/2	[illegible]	23/02	[illegible]
	Division Head Chef de Division	Information Information				
	Modal Coordinator Coordonnateur Modal	Information Information				
	UP Coordinator Coordonnateur des PS	If Accepted: Arrange Meeting/Advise of Outcome of Meeting Si accepté: Prépare réunion/Avise selon les résultats de la réunion If Rejected: Advise DSS Si rejeté: Avise MAS				

Section 1 — Model Coordinator / Coordonnateur Modal

Seems to be a regulatory problem that need to be addressed - funding is the problem to solve - None in A Base, None in Energy Plan. Lewis.

Section 2 — Project Officer / Agent de Projet

(a) See attached letter - Feb 6/87
The work proposed would help in the regulatory process - as to whether and when to adopt the 1991 + 1994 emission standards for diesels.

(b) Propose 20K of TDC funds with the balance from Energy R&D, Surface + EMR

(c) Noted - no additional comments to offer [illegible] 6/2/86.

Section 3 — Division Head / Chef de Division

Recommend "accept" provided that Energy funds are found and that 20K TDC B&M be in 2nd year. L. Sun-14.

Section 4 — EDTDC

Not currently a TDC priority. Not in the operational plan. No TDC funds available.

UP Coordinator: Advise DSS concerning Transport Canada Position
Arrange for Attendance at USS Meeting
Advise Administrations of Outcome of DSS Meeting
Advise Modal Coordinator of Outcome of DSS Meeting

Coordonnateur des PS: Aviser MAS concernant la position de Transports Canada
Préparer la participation à la réunion du MAS
Aviser l'Administration selon les résultats de la réunion du MAS
Aviser le Coordonnateur Modal selon les résultats de la réunion du MAS

Results of DSS Meeting:
Résultats de la réunion du MAS

TDC/CDT 02-007

Government of Canada | Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / À	EDTDC c.c. (Project Officer) (Modal Coordinator) (Funding Coordinator)
FROM / DE	Division Chief

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE — N / RÉFÉRENCE D xxxx-xx
YOUR FILE — V / RÉFÉRENCE
DATE

APPENDIX 2A

SUBJECT / OBJET PROJECT JUSTIFICATION
PROJECT TITLE:
*(Short Title: 30 characters long maximum - for the MIS)

1. MODAL OBJECTIVE (4 character code)

Modal objectives for approved TDC activities are provided in the annual TDC Operational Plan. The same wording should be used in preparing the project justification and the reference number of the objective should be indicated in parenthesis following the short title to facilitate MIS input.

If there is an important project which does not fall under the presently approved objectives, then prepare a proposed objective summarizing:

- why contract is being undertaken
- broad context
- benefits to transportation system (qualitative)
- instead of a reference number, indicate "PROPOSED" in parenthesis following the short title.

2. MODAL SUB-OBJECTIVE (4 character code)

Modal sub-objectives for approved TDC activities are provided in the annual TDC Operational Plan. The same wording should be used in preparing the project justification and the reference number of the sub-objective should be indicated in parenthesis following the heading to facilitate MIS input.

If there is an important project which does not fall under the presently approved sub-objectives, then prepare a proposed sub-objective summarizing:

- the goals to be achieved from this and related projects in the same R&D area
- links to modal objective.
  Be sufficiently precise that accomplishment of the goal, and therefore termination of the activity can be easily identified (quantitative). Instead of a reference number, indicate "PROPOSED" in parenthesis following the heading.

. . /2

3. *PROJECT OBJECTIVE(S) (600 characters on 8½ typewritten lines maximum)

- Specific output that is expected from this particular project
- Contribution towards modal sub-objective(s).

4. *SCOPE (600 characters on 8½ typewritten lines maximum)

- How research plan will be accomplished
- Brief summary of the technical work describing:
  . hardware development or technical study
  . approach and research methodology
  . scientific processes and analytical techniques
  . limits - what it does not include

5. BACKGROUND

- Source of project (i.e. unsolicited proposal, tasked, follow-on work, etc.)
- Relationship to previous/current work
- Should be brief. Provide background only, not project justification.

6. DESCRIPTION OF WORK

- Tasks to be undertaken
- Deliverables (i.e. report, prototype equipment, audio-visual material, etc.)

7. JUSTIFICATION

- Expected benefits and beneficiaries
- Technical innovations
- Probability of success/risk
- Relevance to TDC program and departmental/governmental policies, objectives and programs
- Method of selection from alternatives
- Departmental support or tasking request
- Cost sharing, if applicable
- Consider issue of public reaction for high visiblity projects

8. METHOD OF IMPLEMENTATION

*- Proposed contractor
- Type of project (in-house or contracted out)
- Competitive bids or sole source (including justification for sole source)
- Contracting arrangements (i.e. DSS, TC Service Contract, etc.)
- Possibility of Treasury Board/Contract Review Board, APD/PAD Documents
- Management strategies (project officer, steering committee, continuing coordination, etc.)

. . /2

9. RESULTS OF PRIOR CONSULTATIONS

- Tasked or endorsed project, or TDC exploratory R&D
- Results of consultation within Transport Canada
- Support obtained for the project from other departments, provinces, international organizations, industry and other
- Position of modal advisory boards
- Resolution of jurisdictional concerns

NOTE: Use names/titles and attach pertinent tasking letters or memoranda of endorsement.

10. PROJECT COST ESTIMATE

- Source of funds (it is important to consult with TDC Modal Coordinators before identifying funding sources for which they have responsibility).
- Cost breakdown by funding source
- Cost breakdown by fiscal year
- Person-year requirements (when this is a significant issue)

11. SCHEDULE

- Duration of the project (including expected starting and completion dates)
- For large projects, RFP's, TB and other special authorizations, include a milestone schedule outlining steps to implement the project.

(Signature of Division Chief)

Government of Canada | Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / A	N.E. Rudback
	c.c. J.H. Morgan B.B. Myers M. Avni
FROM / DE	M. Avni
	FEB / FEV 20 1987

SECURITY CLASSIFICATION - DE SÉCURITÉ
OUR FILE – N / RÉFÉRENCE D1455-191
YOUR FILE – V / RÉFÉRENCE
DATE February 18, 1987

SUBJECT / OBJET PROJECT JUSTIFICATION
Development of a Prototype Transcribed Weather Broadcast (TWB) System for Vancouver
Short title: Prototype TWB Vancouver

1. MODAL OBJECTIVE (A300)

To develop expertise, techniques and equipment in support of airways services for the improvement of safety, efficiency and productivity in Canadian air operations.

2. MODAL SUB-OBJECTIVE (A310)

To improve the acquisition and distribution of data by voice or by machine code.

3. PROJECT OBJECTIVE

To develop a prototype Transcribed Weather Broadcast (TWB) system using an on-line computer-generated weather message synthesis based on Oracle's ITIS technology. To conduct a demonstration of the prototype at the Vancouver Airport.

4. SCOPE

The prototype will be based on Oracle's ITIS system and will include a professional quality of recorded messages. The project will also include a demonstration of the equipment based on actual in-service scenarios of weather annunciation.

5. BACKGROUND

In 1986, Oracle Communications, under contract to the TDC developed new, high quality, interactive information technology which was demonstrated during EXPO 86. This technology, with minor modifications, could be applied to a number of different activities many of which are currently the responsibility of Transport Canada. The benefits of automating the current information services include increased safety, efficiency, reliability, and lower operating costs.

.../2

Air Traffic Services (ATS) provides an ideal environment in which Oracle can assemble and modify its speech technology, particularly its computerized radio and automated telephone systems for use in a high quality demonstration. A demonstration would be timely because ATS is currently considering replacing its existing weather and aviator information system and has approached Oracle to demonstrate its more efficient, reliable and economical technology.

6. DESCRIPTION OF WORK

The work to be undertaken shall consist of the following elements:

6.1 Review Air Traffic Message Content
6.2 Design MENU for Teleph. and Radio Content
6.3 PreTest and Modify MENU
6.4 Select Digital Vocabulary
6.5 Finalize Record/Reporting Format
6.6 Finalize Equipment and Software Design
6.7 Review System Specs with Air Traffic
6.8 Operational test: menu, vocabulary and message form
6.9 Record Digital Vocabulary
6.10 Modify software
6.11 Purchase equipment
6.12 Install off-line test configuration
6.13 Preliminary demonstration to Aviation Group and a preliminary demonstration to Marine Group in Vancouver not later than March 31, 1987.
6.14 Re-test MENU, vocabulary and message
6.15 Prepare operations manual
6.16 Demonstrate syste
6.17 Prepare report on work undertaken and results achieved.

7. JUSTIFICATION

ATS provides weather and special notices to aircraft flying at less than 10,000 feet - virtually all private as opposed to commercial pilots use this service. Currently the regional service is provided out of facilities located at the Vancouver International Airport and covers an area extending throughout the Lower Mainland up to Hope.

ATS collects two types of information; weather, and notices to airmen (NOTAM) which come into a preprogrammed microcomputer over two teletype circuits. Four types of weather information are provided in three categories: hourly and specials; terminal forecasts; and, regional forecasts. The hourly and special reports, and the terminal forecasts are in a standard format; the regional forecasts are partially formatted, i.e., they may contain an unlimited vocabulary presented in a non-standardized format (although a portion of the regional forecast reports does contain formatted information).

Assembled reports, known as Transcribed Weather Broadcast (TWB), are then made available on a continuous recorder by telephone and radio. The recordings are 2 to 5 minutes in length and are manually updated approximately twice per hour by duty staff. Currently, a total of ten telephone lines are available to provide local weather information to airmen; no radio service is available because of recurring equipment failures although two frequencies have been assigned for this purpose.

The equipment being proposed by Oracle promises an improved safety and level of service by providing highly intelligible and up-to-the minute weather messages with fewer operators.

8. METHOD OF IMPLEMENTATION

DSS will be requested to negotiate a sole source contract with Oracle Communications Inc. Sole source is justified as most of the technology is proprietary to Oracle.

9. RESULTS OF PRIOR CONSULTATIONS

This project has been discussed in detail with ATS in Vancouver, and has received their whole-hearted support. ATS Vancouver indicated intent to purchase such units following successful demonstration. The Coast Guard office in Vancouver is also interested in this demonstration as similar equipment would be suitable for them as well.

10. PROJECT COST ESTIMATE

It is estimated that this project will cost $69,000. Of this sum $60,000 will be spent during the 1986/87 fiscal year and the remaining $9,000 in 1987/88. The funds will be taken from O&M budget.

11. SCHEDULE

The project should commency by February 23, 1987 and be complete by April 30, 1987.

M. Avni

JHM/hb

FORMULE DE CONTRÔLE DES DOSSIERS DU CDT
TDC RECORDS FILE CONTROL FORM

NO. DOSSIER
FILE NO. D-1460-258

NO. DU VOL.
VOL. NO. 1

CLASSIFICATION
CLASSIFICATION

DEMANDÉ PAR
REQUESTED BY P.L. SEMERY

DATE
DATE OCTOBER 2, 1987

1450 RECHERCHE ET DÉVELOPPEMENT GÉNÉRAL
RESEARCH & DEVELOPMENT GENERAL

1452 PROGRAMMES UNIVERSITAIRES DES TRANSPORTS
TRANSPORT UNIVERSITY PROGRAMS

1455 AIR

1460 MARINE X

1465 SURFACE

1467 PIPELINES

TITRE DU DOSSIER
FILE TITLE SHIP DE-ICING METHODS

REMARQUES
REMARKS

APPENDIX 2.5

TDC CDT 82-001

Government of Canada | Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / A	ALL TDC STAFF
FROM / DE	Peter L. Eggleton - EDTDC
SUBJECT / OBJET	SIGNING AUTHORITY DELEGATION LEVEL

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE – N / RÉFÉRENCE
YOUR FILE – V / RÉFÉRENCE
DATE May 28, 1982

This memorandum establishes the signing authority delegation level within the Transportation Development Centre (TDC) of the ADMSP/DGRD group, and is valid from 28 May 1982 until further notice.

1. Project Approval-in-principle

1.1 In-house conducted projects

Approval-in-principle for these projects is delegated to EDTDC.

1.2 Projects under $500,000

Approval-in-principle for these projects is delegated to EDTDC.

1.3 Projects over $500,000

Approval-in-principle for projects whose total estimated cost exceeds $500,000 using funds from TDC's A-based budget shall be obtained from DGRD and ADMSP and will, in fact, be the submission of a departmental Approval-in-Principle (APD) and Program-Approval-Document (PAD) and subsequently to Treasury Board for approval.

1.4 Projects over $1,000,000 from special allocations*

Approval-in-principle for projects whose total estimated cost exceeds $1,000,000 and will utilize special R&D funds allocated by MSERD for economic priorities, shall be obtained from DGRD and ADMSP and will, in fact, be the submission of a departmental Program Approval Document (PAD) and subsequently to Treasury Board for approval.

. . 2

*Currently for Arctic Marine only.

2. Signing authority for contracts, requisitions and agreements

The signing authority for the various documents which will result in contracts issued by or on behalf of TDC shall be in accordance with the Transport Canada Financial Policy and Procedures Manual, Part 1, Chapter 3, appendix entitled "Delegation of Financial Authorities", approved by the Minister, January 14, 1982.

3. Signing authority for amendments

Signing authority for amendments to all Transport Canada contracts is with ADMSP. Signing authority for amendments to DSS requisitions for amounts in addition to those originally approved up to the limit of $15,000 is delegated to Associate Director and Chiefs. Signing authority for amendments over $15,000 is delegated to EDTDC. A memo explaining reasons for amendment shall accompany the DSS requisition.

4. Approval, processing and routing procedures

Documentation shall be prepared and routed according to project control procedures for the TDC Management Information System. It shall also respect departmental procedures regarding handling of Approval-in-Principle (APD) and Project Approval (PAD) Documents, Treasury Board submissions, use of MSERD, Energy R&D and DSS Bridge Funds, interdepartmental agreements, DOT contracts, DSS requisitions and contracts, contracts through the Transport Canada Material Management Directorate, 'short-form' service contracts and local purchase orders. Approval-in-principle will be obtained based upon a Project Justification memorandum routed accordingly and containing information on the background and other pertinent information as described in Chapter 2.50 of the TDC Project Procedures Manual.

Peter L. Eggleton

Peter L. Eggleton

Transportation Development Centre
Centre de développement des transports
Routing Slip/Bordereau d'acheminement

REQUEST FOR APPROVAL-IN-PRINCIPLE/DEMANDE D'APPROBATION-DE-PRINCIPE

Project Title / Titre du projet: AIRPORT PEDESTRIAN FLOW MODEL

TDC Project No / No de projet CDT: 7019

Project Officer / Agent de projet: BRIAN MARSHALL

TDC file No / No de dossier CDT: D14555-172 | |

Responsibility Centre No / No du centre de responsabilité: 257130

Modal Sub-objective No / No du sous-objectif modal: A401

A-I-P A-D-P Date: 21/11/86

Modal Sub-objective/ Sous-objectif modal: [X] Existing/Actuel [ ] New/Nouveau (proposed/proposé)

Type of Project / Type du projet: [X] Tasked/Assigné [ ] Endorsed/Endossé [ ] Non-Tasked/Non-Endorsed / Pas assigné/Pas endossé

SOURCES OF FUNDS / SOURCE DES FONDS

SPONSORS/RÉPONDANTS	TDC/CDT					TOTAL
Est. Cost Current Year / Coût est. année courante	$ 40,000	$	$	$	$	$ 40,000
Est. Cost Current Year + 1 / Coût est. année courante + 1	$ 45,000	$	$	$	$	$ 45,000
Est. Cost Future Years / Coût est. années futures	$	$	$	$	$	$
Total Estimated Cost / Coût estimatif total	$ 85,000	$	$	$	$	$ 85,000

ROUTE TO / ACHEMINER À (NAME/NOM)	RESPONSIBILITY / RESPONSABILITÉ	ACTION	RECEIVED / REÇU DATE	RECEIVED / REÇU INIT	FORWARDED / ACHEMINÉ DATE	FORWARDED / ACHEMINÉ INIT
	Project Officer / Agent de projet	Prepare Justification Memo / Préparation du memo de justification			25 Nov 87	BM
D. Whitehead	Division Chief / Chef de Division	a) Review/Examen b) Sign/Signature	25/11	[illegible]	25 Nov 87	BM
N.E. Rudback	EDTDC DGRD	Review and Approve/ Examen et approbation			26/11	NER
A. Sidhom	Manager Financial Services / Gestionnaire Services financiers	a) Review/Examen b) Project No. N° de projet c) Update MIS/Mise à jour du SIG	27/11/87	[illegible]	27/11/87	[illegible]
Whitehead	Division Chief / Chef de Division	Information/Renseignements				
B. Marshall	Project Officer/ Agent de projet	Initiate Contracting Document/ Entamer rédaction documents contractuels				

NOTE: Attach Project Justification Memorandum and other supporting documentation (i.e. Tasking memos, cost-sharing agreements)
Annexer le memorandum de justification de projet et autres pièces à l'appui (i.e. notes d'assignation de travail, accords de partage des coûts)

APPENDIX 2-7a

APPENDIX 2-7b

Transportation Development Centre
Centre de développement des transports
Routing Slip/Bordereau d'acheminement

REQUEST FOR APPROVAL-IN-PRINCIPLE/DEMANDE D'APPROBATION-DE-PRINCIPE

Project Title: / Titre du projet: CIMPIEC / TIED INC INC.

TDC Project No.: / No de projet CDT: 6474

Project Officer: / Agent de projet: H. Pollows

TDC file No.: / No de dossier CDT: D1450-152

Responsibility Centre No.: / No. du centre de responsabilité: 257120

Modal Sub-objective No.: / No. du sous-objectif modal: A801

A-I-P/A-D-P Date: 21/04/16

"TERMINATE"

Modal Sub-objective/ Sous-objectif modal: ☐ Existing/ Actuel ☐ New/Nouveau (proposed/proposé)

Type of Project/ Type du projet: ☐ Tasked/Assigné ☐ Endorsed/Endossé ☐ Non-Tasked, Non-Endorsed/ Pas assigné, Pas endossé

SOURCES OF FUNDS/SOURCE DES FONDS

SPONSORS/RÉPONDANTS	TDC/CDT					TOTAL
Est. Cost Current Year Coût est. année courante	$	$	$	$	$	$
Est. Cost Current Year + 1 Coût est. année courante + 1	$	$	$	$	$	$
Est. Cost Future Years Coût est. années futures	$	$	$	$	$	$
Total Estimated Cost Coût estimatif total	$	$	$	$	$	$

ROUTE TO ACHEMINER À (NAME/NOM)	RESPONSIBILITY RESPONSABILITÉ	ACTION	RECEIVED REÇU DATE	RECEIVED REÇU INIT.	FORWARDED ACHEMINÉ DATE	FORWARDED ACHEMINÉ INIT.
	Project Officer/ Agent de projet	Prepare Justification Memo/ Préparation du mémo de justification			3 NOV/87	
M Avni	Division Chief/ Chef de Division	a) Review/Examen b) Sign/Signature			3/nov/87	
N.E. Rodrigue	EDTDC/DGRD	Review and Approve/ Examen et approbation	4/11/87		4/11	
A. Tibiani	Manager Financial Services Gestionnaire Services financiers	a) Review/Examen b) Project No./N° de projet c) Update MIS/Mise à jour du SIG	13/11/87		13/11/87	
M Avni	Division Chief/ Chef de Division	~~Information/Renseignements~~				
D. Folin	Project Officer/ Agent de projet	Initiate Contracting Document/ Entamer rédaction documents contractuels				

NOTE: Attach Project Justification Memorandum and other supporting documentation (i.e. tasking memos, cost-sharing agreements).
Annexer le mémorandum de justification de projet et autres pièces à l'appui (i.e. notes d'assignation de travail, accords à frais partagés).

TDC/CDT-79-013 Rev 01-86

MIS 87-11-18 D.F.

Government of Canada | Gouvernement du Canada

MEMORANDUM **NOTE DE SERVICE**

TO / A: TOUT LE PERSONNEL DU CDT
ALL TDC STAFF

FROM / DE: A. SIDHOM

SECURITY · CLASSIFICATION · DE SÉCURITÉ:

OUR FILE – N / RÉFÉRENCE: D1019 - 2

YOUR FILE – V / RÉFÉRENCE:

DATE: 87-01-21

SUBJECT / OBJET: REVISION DES NUMEROS DE CENTRE DE RESPONSABILITE POUR L'ANNEE FISCALE 1987/88

REVISED RESPONSIBILITY CENTRE NUMBERS FOR FISCAL YEAR 1987/88

APPENDIX 2-8

Veuillez prendre note du nouveau numéro d'identification financière des centres de responsabilité du groupe de DGRD et ce à partir du 1er avril 1987.

Please be advised of the new responsibility centre numbers for the DGRD group which takes effect April 1, 1987.

FY 1986/87 (OLD)		FY 1987/88 (NEW)	
Centre Centre	Number Numéro	Centre Centre	Number Numéro
DGRD	106600	DGRD	257000
EDTDC	106610	EDTDC	257100
Current Technology	106611	Current Technology	257110
Advanced Technology	106612	Advanced Technology	257120
Technology Application	106613	Technology Application	257130
Research Analysis and Special Programs	106614	research Analysis and Special Programs	257140
Transportation System Technology	106615	Transportation System Technology	257150
DRPC	106620	DRPC	257200
DRPD	106630	DRPD	257300
Energy Program	106640	Energy Program	257400

A. Sidhom
Chef, Finance et SIG
Chief, Finance and MIS

AS/jf

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / A	PROFESSIONAL STAFF AND SECRETARIES
FROM / DE	A. Sidhom

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE – N / RÉFÉRENCE D1590-1
YOUR FILE – V / RÉFÉRENCE
DATE June 15, 1988

SUBJECT / OBJET **APPROVAL-IN-PRINCIPLE**

Nine (9) copies of the project justification memorandum will be required for contracts requiring funding from the sponsors identified below. A list of the sponsors is provided identifying the abbreviation and MIS number code to use on the routing slip, as well as the name of the coordinator.

After approval, Division secretaries will route an approved copy of the coordinator.

Sponsor	MIS Code	Abbreviation to use	Coordinator
Liquids	14	LIQS	R. Sabounghi
NEP-Transportation	13	TRNS	R. Nishizaki
COAL-Supply	4	COAL SUPPLY	R. Nishizaki
NEP-Conservation	12	CONS	R. Sabounghi
TCM Transport Canada Marine	7	TCM	R. Nishizaki
Elderly and Handicapped - TDPP-E&H	22	TDPP E&H	L. Suen
DSS Bridge Funding	6	DSS	J. Morgan

A. Sidhom
Manager, Financial Services

AS/jf

APPENDIX 2-9

1.0

DATE :

P.O. #

MIS PROJECT ENTRY FORM

(TO BE COMPLETED WITH DSS REQUISITION FOR CONTRACT)

IDENTIFICATION

REC #: ORIGIN : AIP DATE : RESPONSIBILITY CNTR :

PROJECT TITLE CENTRAL REGISTRY FILE NUMBER

SOURCE OF FUNDS (ESTIMATED)
(TO BE MODIFIED ONLY IF THERE IS A CHANGE FROM AIP ROUTING SLIP OR THE LATEST MIS STATUS REPORT

PROJ #

SPONSOR

$CY

$CY+1

$FY

TOTAL
$AUTH

TOTAL PROJECT VALUE
(Computer generated)

PERFORMING ORGANIZATION

NAME

|_| CHECK HERE IF THERE IS A CHANGE OF ADDRESS

ENTER ADDRESS INFO ONLY IF THIS IS A NEW CONTRACTOR OR CHANGE OF ADDRESS

ADDRESS (head office)

CITY•PROVINCE

POSTAL CODE

CONTACT PERSON

CONTACT'S PHONE #

CONTRACTORS'S WORKING LANGUAGE |_| 1 - FRENCH 2 - ENGLISH

CONTRACTOR LOCATION |_|_|

1 - NEWFOUNDLAND	2 - PRINCE EDWARD ISLAND	3 - NOVA SCOTIA	4 - NEW BRUNSWICK
5 - QUEBEC (NON-NCR)	6 - ONTARIO (NON-NCR)	7 - MANITOBA	8 - SASKATCHEWAN
9 - ALBERTA	10- BRITISH COLUMBIA	11- YUKON/NWT	12- NCR (QUEBEC)
13- NCR (ONTARIO)	14- FOREIGN		

APPENDIX 2-10

DATE :.
P.O. ;

MIS PROJECT ENTRY FORM

CONTRACTOR ORGANIZATION TYPE |_|_|

1 - TDC
2 - OTHER FED.GOV'T DEPARTMENT
3 - UNIVERSITY OR UNIVERSITY INSTITUTE
4 - OTHER NON PROFIT-INSTITUTE
5 - CDN INDUSTRY CONSULTANT
6 - CDN INDUSTRY MANUFACTURER
7 - CDN INDUSTRY OPERATOR
8 - CDN INDUSTRY-OTHER
9 - FOREIGN
10- OTHER TRANSPORT CANADA
11- MUNICIPALITY
12- PROVINCE

TYPE OF CONTRACT

|_| 1 - LIMITATION OF EXPENDITURE 2 - FIXED PRICE
3 - CEILING PRICE 4 - STANDING OFFER

SCHEDULE (estimated)

-- / -- / --	-- / -- / --	-- / -- / --
START DATE	DRAFT DUE	FINAL DEL. DATE
yy / mm / dd	yy / mm / dd	yy / mm / dd

SCIENTIFIC/TECHNOLOGICAL CLASSIFICATION

(required by Statistic Canada)

ENTER THE APPROPRIATE NUMBER |_|_|

RESEARCH AND EXPERIMENTAL DEVELOPMENT
(eg. design and development of new bus)

Natural Science		Social Science
22	IN-HOUSE R&D	23
24	R&D CONTRACTS	25
26	SUPPORTING CONTRACT	27
28	R&D GRANTS & CONTRIBUTIONS	29
30	RESEARCH FELLOWSHIPS	31
32	ADMINISTRATION OF EXTERNAL PROGRAM	33

RELATED SCIENTIFIC ACTIVITIES
(rg.demonstration of a new b s)

34	SCIENTIFIC/GENERAL PURPOSE DATA COLLECTION	35
36	INFORMATION SERVICES	37
38	TESTING & STANDARDIZATION/ECONOMIC & FEASIBILITY STUDIES	39
40	FEASIBILITY STUDIES/OPERATIONS & POLICY STUDIES	41
42	EDUCATION SUPPORT	43
44	ADMINISTRATION OF EXTERNAL SUPPORT	45

DATE .
P.O. :

MIS PROJECT ENTRY FORM

XTERNAL COST SHARING/CONTRIBUTION IN KIND

|_| 1 - NONE |_| 2 - YES
(If YES fill in the following table)

ORGANIZATION	TOTAL ESTIMATED CONTRIBUTION	DESCRIPTION
|_| 1 - INDUSTRY	|_|_|_|_|_|_|_|_|_|_|_|_|	|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|
|_| 2 - PROV/MUNICIPAL	|_|_|_|_|_|_|_|_|_|_|_|_|	|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|
|_| 3 - FOREIGN	|_|_|_|_|_|_|_|_|_|_|_|_|	|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|
|_| 4 - OTHER	|_|_|_|_|_|_|_|_|_|_|_|_|	|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|

TOTAL VALUE OF COST SHARING NOTE: TOTAL VALUE TO BE CALCULATED BY THE COMPUTER

CONTRIBUTIONS
estimated multi-year value of equipment/personnel lent to project, other contributions in-kind, absorbed cost, etc.

AREA OF BENEFIT

Please indicate the transportation benefit expected from this project?
CHOOSE UP TO THREE AND PRIORITIZE IN THE APPROPRIATE BOXES.

1ST priority |_|_| 2ND priority |_|_| 3RD priority |_|_|

1 - IMPROVED SAFETY
2 - REGIONAL ECONOMIC DEVELOPMENT
3 - IMPROVED SECURITY
4 - E&H ACCESSIBILITY
5 - REDUCED OPERATION COSTS
6 - IMPROVED SERVICE
7 - REDUCED CAPITAL COSTS
8 - REDUCED ADVERSE ENVIRONMENTAL IMPACTS
9 - REDUCED MAINTENANCE COSTS
10- ENERGY CONSERVATION
11- IMPROVED PRODUCTIVITY/EFFICIENCY
12- ENERGY:TRANSPORTATION OF ENERGY
13- DEVELOPMENT OF POLICY
14- ENERGY:ALTERNATIVE FUEL/OTHER
15- DEVELOPMENT OF GUIDELINE OR STANDARDS
16- IMPROVED TECHNOLOGY BASE
17- DEVELOPMENT OF REGULATIONS
18- IMPROVED PROCUREMENT

USER OF RESULTS

Who is the principal user of the results; that is, who will take action on the project results?
(Please note that the user of the results is not necessarily the prime benefeciary, e.g. E&H R&D)

CHOOSE ONE NUMBER |_|

1 - TDC
2 - CANADIAN INDUSTRY:OPERATOR OR CARRIER
3 - TRANSPORT CANADA(NON-TDC)
4 - CANADIAN INDUSTRY:MANUFACTURER
5 - OTHER FED. GOV'T DEPT
6 - MUNICIPALITY
7 - PROVINCE
8 - OTHER

AREA OF IMPACT (required by Statistic Canada)

Please identify the area of impact of this project

CHOOSE ONE NUMBER |_|_|

1 - INTERCITY
2 - INTRACITY
3 - NORTHERN
4 - REMOTE
5 - NATIONAL
6 - REGIONAL
7 - INTERNATIONAL
8 - OCEANS
9 - SPACE
10- OTHER

DATE :
P.O. :

MIS PROJECT ENTRY FORM

LANGUAGE REQUIREMENTS

A. is the project's report(s) intended for general distribution?

1 yes |_| 2 no |_|

B. what is the approximate duration of this report's value?

1. five (5)years or less |_| 2. more than five (5)years |_|

C. what is the estimated demand for this report in the other official language compared with the total demand?

1. 5% or less |_| 2. more than 5% |_|

NOTE: If A1,B2 or C2 was checked, this report must be produced in both official languages and released simultaneously.

PUBLICATION REQUIREMENTS

A. number of copies of main report to be published
english |_|_|_| french |_|_|_|

B. number of copies of summary report to be published (if a separate summary is to be produced)

english |_|_|_| french |_|_|_| not aplicable |_|

C. is the contractor responsible for reports, summary sections and RDFs in the second official language

1 yes |_| 2 no |_|

D. is there any other, unique or general distribution publication intended?

1 yes |_| 2 no |_|

E. if yes TDC will be responsible for the following(check as appropriate)

|_| 1 - consultation only |_| 2 - graphic preparation for printing
|_| 3 - translation |_| 4 - printing
|_| 5 - editing |_| 6 - distribution
|_| 7 - drafting (graphic) |_| 8 - marketing (sales)

PROJECT DELIVERABLES

A. please check those items that are deliverables at the end of this contract

|_| 1 - reports |_| 2 - audiovisual material
|_| 3 - design drawings |_| 4 - computer software/data
|_| 5 - purchased equipment/mater. |_| 6 - prototype equipment
|_| 7 - artwork

NOTE: All such items acquired or developed under this contract belong to TDC unless otherwise agreed to in the contract.

1.0

DATE :87/03/05
P.O. :SABOUNGHI

DATA ENTRY FEEDBACK FORM

(TO BE COMPLETED WITH DSS REQUISITION FOR CONTRACT)

IDENTIFICATION

MEC #: H223 ORIGIN : AIP DATE : 85/06/12 RESPONSIBILITY CNTR : 106613

PROJECT TITLE: CO2 REFRIGERATION

CENTRAL REGISTRY FILE NUMBER: 1465-455

SOURCE OF FUNDS (ESTIMATED)
TO BE MODIFIED ONLY IF THERE IS A CHANGE FROM AIP ROUTING SLIP OR THE LATEST MIS STATUS REPORT

PROJ #	6822	6495	6496	6498	6662
SPONSOR	TDC-O&M	CONS	DSS	TDC-EXT	TDC-O&M
$CY	1,072	132,000	0	50,000	10,000
$CY+1	0	129,000	0	0	19,642
$FY	0	0	0	0	0
$AUTH	1,072	259,500	69,357	50,000	30,642

TOTAL PROJECT VALUE 410,572
(Computer generated)

PERFORMING ORGANIZATION

NAME: FRIDEV-CONCOOL

|_| CHECK HERE IF THERE IS A CHANGE OF ADDRESS

ENTER ADDRESS INFO ONLY IF THIS IS A NEW CONTRACTOR OR CHANGE OF ADDRESS

ADDRESS (head office): 1570 PROVENCHER BLVD S
SUITE 330

CITY,PROVINCE: BROSSARD QUE

POSTAL CODE: J4W 2T8

CONTACT PERSON

CONTACT'S PHONE #

CONTRACTORS'S WORKING LANGUAGE: 0 |_| 1 - FRENCH 2 - ENGLISH

CONTRACTOR LOCATION: QUEBEC |_|_|

1 - NEWFOUNDLAND
2 - PRINCE EDWARD ISLAND
3 - NOVA SCOTIA
4 - NEW BRUNSWICK
5 - QUEBEC (NON-NCR)
6 - ONTARIO (NON-NCR)
7 - MANITOBA
8 - SASKATCHEWAN
9 - ALBERTA
10- BRITISH COLUMBIA
11- YUKON/NWT
12- NCR (QUEBEC)
13- NCR (ONTARIO)
14- FOREIGN

DATE :87/03/05
P.O. :SABOUNGHI

DATA ENTRY FEEDBACK FORM

CONTRACTOR ORGANIZATION TYPE |_|_| 5

1 - TDC
2 - OTHER FED.GOV'T DEPARTMENT
3 - UNIVERSITY OR UNIVERSITY INSTITUTE
4 - OTHER NON PROFIT-INSTITUTE
5 - CDN INDUSTRY CONSULTANT
6 - CDN INDUSTRY MANUFACTURER
7 - CDN INDUSTRY OPERATOR
8 - CDN INDUSTRY-OTHER
9 - FOREIGN
10- OTHER TRANSPORT CANADA
11- MUNICIPALITY
12- PROVINCE

TYPE OF CONTRACT

0 |_| 1 - LIMITATION OF EXPENDITURE 2 - FIXED PRICE
3 - CEILING PRICE 4 - STANDING OFFER

SCHEDULE (estimated)

85/11/06	00/00/00	88/08/31
__ / __ / __	__ / __ / __	__ / __ / __
START DATE	DRAFT DUE	FINAL DEL. DATE
yy / mm / dd	yy / mm / dd	yy / mm / dd

SCIENTIFIC/TECHNOLOGICAL CLASSIFICATION

(required by Statistic Canada)

ENTER THE APPROPRIATE NUMBER 24 |_|_|

RESEARCH AND EXPERIMENTAL DEVELOPMENT
(eg. design and development of new bus)

Natural Science		Social Science
22	IN-HOUSE R&D	23
24	R&D CONTRACTS	25
26	SUPPORTING CONTRACT	27
28	R&D GRANTS & CONTRIBUTIONS	29
30	RESEARCH FELLOWSHIPS	31
32	ADMINISTRATION OF EXTERNAL PROGRAM	33

RELATED SCIENTIFIC ACTIVITIES
(rg.demonstration of a new bus)

34	SCIENTIFIC/GENERAL PURPOSE DATA COLLECTION	35
36	INFORMATION SERVICES	37
38	TESTING & STANDARDIZATION/ECONOMIC & FEASIBILITY STUDIES	39
40	FEASIBILITY STUDIES/OPERATIONS & POLICY STUDIES	41
42	EDUCATION SUPPORT	43
44	ADMINISTRATION OF EXTERNAL SUPPORT	45

DATE :87/03/05
P.O. :SABOUNGHI

DATA ENTRY FEEDBACK FORM

EXTERNAL COST SHARING/CONTRIBUTION IN KIND

0 |_| 1 - NONE |_| 2 - YES
(If YES fill in the following table)

ORGANIZATION	TOTAL ESTIMATED CONTRIBUTION	DESCRIPTION
1 - INDUSTRY	0.00	
2 - PROV/MUNICIPAL	0.00	
3 - FOREIGN	0.00	
4 - OTHER	0.00	

TOTAL VALUE OF COST SHARING CONTRIBUTIONS 0.00 NOTE: TOTAL VALUE TO BE CALCULATED BY THE COMPUTER

estimated multi-year value of equipment/personnel lent to project, other contributions in-kind, absorbed cost, etc.

AREA OF BENEFIT

Please indicate the transportation benefit expected from this project?
CHOOSE UP TO THREE AND PRIORITIZE IN THE APPROPRIATE BOXES.

1ST priority |_|_| 0 2ND priority |_|_| 0 3RD priority |_|_| 0

1 - IMPROVED SAFETY
2 - REGIONAL ECONOMIC DEVELOPMENT
3 - IMPROVED SECURITY
4 - E&H ACCESSIBILITY
5 - REDUCED OPERATION COSTS
6 - IMPROVED SERVICE
7 - REDUCED CAPITAL COSTS
8 - REDUCED ADVERSE ENVIRONMENTAL IMPACTS
9 - REDUCED MAINTENANCE COSTS
10- ENERGY CONSERVATION
11- IMPROVED PRODUCTIVITY/EFFICIENCY
12- ENERGY:TRANSPORTATION OF ENERGY
13- DEVELOPMENT OF POLICY
14- ENERGY:ALTERNATIVE FUEL/OTHER
15- DEVELOPMENT OF GUIDELINE OR STANDARDS
16- IMPROVED TECHNOLOGY BASE
17- DEVELOPMENT OF REGULATIONS
18- IMPROVED PROCUREMENT

USER OF RESULTS

Who is the principal user of the results; that is, who will take action on the project results?
(Please note that the user of the results is not necessarily the prime benefeciary, e.g. E&H R&D)

CHOOSE ONE NUMBER |_| 0

1 - TDC
2 - CANADIAN INDUSTRY:OPERATOR OR CARRIER
3 - TRANSPORT CANADA(NON-TDC)
4 - CANADIAN INDUSTRY:MANUFACTURER
5 - OTHER FED. GOV'T DEPT
6 - MUNICIPALITY
7 - PROVINCE
8 - OTHER

AREA OF IMPACT(required by Statistic Canada)

Please identify the area of impact of this project

CHOOSE ONE NUMBER |_|_| 0

1 - INTERCITY
2 - INTRACITY
3 - NORTHERN
4 - REMOTE
5 - NATIONAL
6 - REGIONAL
7 - INTERNATIONAL
8 - OCEANS
9 - SPACE
10- OTHER

DATE :87/03/05
P.O. :SABOUNGHI

DATA ENTRY FEEDBACK FORM

LANGUAGE REQUIREMENTS

A. is the project's report(s) intended for general distribution?

0 1 yes |_| 2 no |_|

B. what is the approximate duration of this report's value?

0 1. five (5)years or less |_| 2. more than five (5)years |_|

C. what is the estimated demand for this report in the other official language compared with the total demand?

0 1. 5% or less |_| 2. more than 5% |_|

NOTE: If A1,B2 or C2 was checked, this report must be produced in both official languages and released simultaneously.

PUBLICATION REQUIREMENTS

A. number of copies of main report to be published
0 english |_|_|_| 0 french |_|_|_|

B. number of copies of summary report to be published (if a separate summary is to be produced)

0 english |_|_|_| 0 french |_|_|_| not aplicable |_|

C. is the contractor responsible for reports, summary sections and RDFs in the second official language

0 1 yes |_| 2 no |_|

D. is there any other, unique or general distribution publication intended?

0 1 yes |_| 2 no |_|

E. if yes TDC will be responsible for the following(check as appropriate)

0 0 0 0 0 0 0 0

|_| 1 - consultation only |_| 2 - graphic preparation for printing
|_| 3 - translation |_| 4 - printing
|_| 5 - editing |_| 6 - distribution
|_| 7 - drafting (graphic) |_| 8 - marketing (sales)

PROJECT DELIVERABLES

A. please check those items that are deliverables at the end of this contract

0 0 0 0 0 0 0

|_| 1 - reports |_| 2 - audiovisual material
|_| 3 - design drawings |_| 4 - computer software/data
|_| 5 - purchased equipment/meter. |_| 6 - prototype equipment
|_| 7 - artwork

NOTE: All such items acquired or developed under this contract belong to TDC unless otherwise agreed to in the contract.

INSTRUCTIONS FOR COMPLETING MIS PROJECT ENTRY FORM

IDENTIFICATION

This section is automatically generated by the MIS, i.e. you receive the MIS Project Entry Form with all Identification elements provided. If the number of sponsors exceeds five, a second identification page will be automatically provided. You have only to review and revise this section.

PERFORMING ORGANIZATION

Name

Enter the full legal name of the organization responsible for carrying out the project. To determine whether the contractor is new or not, refer to the "LIST OF CONTRACTORS" located at each computer terminal and also as Appendix 2-13 in the TDC Project Procedures Manual. If the contractor does not appear on the list, or you have indicated a change of address on the form, please enter the address (head office, city/province and the postal code. The maximum number of characters is 30.

Address (head office)

Enter address of contractor's head office only if it is a new organization or a change of address.

City/Province

Enter the city and province in which the contractor's head office is located. This is to be entered only if the organization is new or you have indicated a change of address. Abbreviate only when necessary. The maximum allowable characters is 20.

Postal Code

Enter postal code of the contractor's head office only if the contractor is new or you have indicated a change of address.

eg. H1Z 3M8

.../2

Contact Person

Enter the first and last name of your contact for the particular project. Remember, contact persons may vary from project to project within the same firm. Avoid using titles in front of the names (eg. MR.). The maximum allowable characters is 20. If the name is longer than the allowable space, provide initial of given name.

eg. JOHN SMITH
J. LAFRAMBOISE

Contact's phone number

Enter the contact's phone number. If the contact is located outside the local region of Montreal, please provide the area code as well. Enter in the following format:

eg.	(613) 722-6574	Long Distance
	(1) 567-9876	Long Distance surrounding the MTL region
	344-7689	Local phone number

Contractor's working language

Enter the number identifying the contractor's working language.

Contractor's location

Enter the region in which the contractor's head office is located. Please note that those located within the National Capital Region, Quebec or Ontario, must be coded as such.

Contractor organization type

If the organization is new, identify its type of organization by entering the appropriate number. Crown corporations such as VIA, CN, Air Canada are considered type 7. Transit authorities are considered type 11.

Type of contract

Enter the number identifying the type of contract agreed to between TDC and the performer, and to be negotiated by DSS.

.../3

The four basic contract types used by TDC are:

- limitation of expenditure: used when the work requirements are not sufficiently well defined to offer a ceiling or fixed price contract. The contractor is not obligated to perform any work or service that will cause the total liability of Her Majesty to exceed the said sum. The contractor is to notify DSS and TDC as to the adequacy of this sum when it is 75% committed or four (4) months prior to the final delivery date, whichever comes first.

- fixed price: used when the work requirements are well defined. No increase in total liability or in the price of the work or services can result from any design changes, modifications or interpretations of the specifications, will be authorized or paid to the contractor unless such changes, modifications in interpretation have been approved by DSS prior to their incorporation in the work.

- ceiling price: used when the work requirements are well defined. The contract price is subject to a downward adjustment so as not to exceed the actual charges and costs reasonably and properly incurred in the performance of the work. The work requirements shall be completed in accordance with the terms and conditions of the contract subject to the ceiling price - no additional funds will be made available.

- standing offer: a unique contract where the work is undefined and consists of a number of assignments or tasks. Each task is negotiated individually, and the cost of each task is equivalent to a ceiling price sub-contract.

Schedule (estimated)

Enter the date the contractor is most likely to start the project, and estimated reception dates of both the draft and final deliverables.

Scientific/technological classification

Enter tne number identifying the appropriate science/technology category for the project. The number entered will reflect whether the project is a Natural or Social Science, and the suitable technological classification. For a description of each category, refer to the attached annex.

External cost sharing/Contribution in kind

Identify whether the project will receive external cost contributions or if equipment/personnel will be lent to the project. This is an estimated value of the resources contributed to a TDC project by second or third parties and over which TDC has no control or accountability. Check the NONE or YES box. If yes, complete the table.

Identify the source by checking up to 4 of the specified organization groups. Estimate the total value of contributions from each source and enter the appropriate dollar figure. Also, provide a brief description of the contribution.

Areas of benefit

Enter up to three numbers, by order of priority, identifying the nature of the benefits anticipated from the project.

User of results

Enter the number identifying who will use the results of the project. Please note that the user of the results is not necessarily the prime beneficiary, i.e. indicate who will use the research results, not who will benefit from the research results.

Area of impact

Enter the number identifying the area of impact of this project. Area of impact is a combination of geography and category of transport research.

Project Deliverables

A. Identify those items that are deliverables at the end of the contract. Check as many boxes as required.

Publication Requirements

A. Enter the number of copies (English, French, bilingual) of the final report required by the contract.

B. Enter the number of copies (English, French, bilingual) of the interim report required by the contract. If no interim report is required or if the interim report is not intended for publication, check NOT APPLICABLE.

C. Enter the number of copies (English, French, bilingual) of the summary report required by the contract. If the contract does not call for a summary report, check NOT APPLICABLE.

D. Indicate whether, in addition to the final, interim, and/or summary report, the contractor will be producing printed or audio/visual material intended for wide release (e.g. "Vehicles and Adaptive Aids for Elderly and Disabled Drivers: A Buyer's Guide", TP 6895E and F).

E. Check YES or NO to indicate whether the contractor is responsible for translating/producing RDFs, summaries, and/or reports in the second official language.

.../5

F. Indicate whether TDC Publications will be called upon to provide any of the listed services for the production of printed or audio/visual material related to this contract.

Language Requirements

Check the appropriate boxes to indicate:

(a) whether the final report and, if appropriate, the interim report will be produced in one or both official languages.

(b) the reason for this decision.

As set out in "Language Policy and Procedures for TDC Publications" (Appendix 4-6), the following criteria are used to determine whether a contractor's report is to be produced in one or both official languages:

1. Intended distribution of report: General or Limited

   If general distribution is intended, the report must be produced in both official languages and released simultaneously.

   If limited distribution is intended, the following criteria are to be assessed:

2. Duration of report's value: a) 5 years or less or b) 5 years or more

   If 5 years or more, the report must be produced in both official languages and released simultaneously.

3. Estimated demand in the second official language as a percentage of total estimated demand: a) less than 5% or b) more than 5%

   If more than 5%, the report must be produced in both official languages and released simultaneously.

   If 2a and 3a apply, the report is to be produced in the contractor's working language, but must include a bilingual summary (see "TDC Publication Standards and Guidelines for Contractors" TP 929).

INSTRUCTIONS FOR COMPLETING MIS PROJECT ENTRY FORM

ANNEX - SCIENTIFIC/TECHNOLOGICAL CLASSIFICATION

1. TDC projects are to be classified according to a system designed by Statistics Canada and Treasury Board to collect science expenditure data.

2. Projects are first to be identified as either in the natural or social sciences. Natural Sciences consist of disciplines concerned with understanding, exploring, developing or utilizing the natural world. Included are the engineering, mathematical, life and physical sciences. Social Sciences and humanities are synonymous and thus embraces all disciplines involving the study of human actions and conditions and the social, economic and institutional mechanisms affecting humans. Included are such disciplines as anthropology, business administration and commerce, communications, criminology, demography, economics, geography, history, languages, literature and linguistics, law, library science, philosophy, political science, psychology, religious studies, social work, sociology, and urban and regional studies. Most of TDC's projects are in the Natural Sciences.

3. Once the science is determined Project officers are to determine whether a project's central activity is scientific research and experimental development or a related scientific activity.

   Research and experimental development (R&D) is creative work undertaken on a systematic basis to increase the stock of scientific and technical knowledge and to use this knowledge in new applications. An R&D project generally has three characteristics: a substantial element of uncertainty, novelty and innovation; a well-defined project design; a report on the procedures and results of the project. The operation of a new transportation system as a demonstration project is not R&D; however, the creation of the system as a prototype and the technical evaluation of its operations should be considered R&D. R&D requires the acquisition of knowledge and not just information.

   In addition there are a number of activities closely related to R&D, and are termed related scientific activities (RSA). RSA generally involve data or information collection, feasibility, economic, operations or policy studies.

4. Within R&D activities a project may be:

IN-HOUSE R&D - R&D performed by personnel assigned to the reporting program. It may include R&D carried out on behalf of another program on a cost recovery basis.

R&D CONTRACTS - contracts to an outside institution or individual to fund R&D performed by the institution or individual. The criterion is: would the performer report the contract as intramural government-funded R&D if asked?

SUPPORTING CONTRACTS - contracts to an outside institution or individual to provide goods or services necessary to support the in-house R&D program. Examples are contracts with data processing firms for computing services, maintenance contracts for R&D facilities, or procurement contracts for specialized equipment which is not considered capital.

R&D GRANTS AND CONTRIBUTIONS - awards to organizations or individuals for the conduct of R&D and intended to benefit the recipients rather than provide the program with goods, services or information.

RESEARCH FELLOWSHIPS - awards to individuals for advanced research training and experience. Awards intended primarily to support the education of the recipients should be reported as education support.

ADMINISTRATION OF EXTRAMURAL PROGRAMS - the costs of identifiable units engaged in the administration of contracts and grants and contributions for scientific activities that are to be performed outside the federal government. These expenditures should be broken down by the type of scientific activity supported, i.e. R&D or RSA. TIES contracts are to be classified under this item, for either R&D or RSA.

5. Within RSA activities a project may be:

SCIENTIFIC DATA COLLECTION (natural science only) - the gathering, processing, collating and analyzing of data on natural phenomena. These data are normally the results of surveys, routine laboratory analyses or compilations of operating records.

Examples of scientific data collection are routine geological, hydrographic, oceanographic and topographic surveys; routine astronomical observations; maintenance of meteorological records; etc.

GENERAL PURPOSE DATA COLLECTION (social science only) -

the routine gathering, processing, collating, analysis and publication of information on human phenomena using surveys, regular and special investigations and compilations of existing records. It excludes data collected primarily for internal administrative purposes (e.g. departmental personnel statistics) as well as the collection of data as part of an R&D project.

Data (scientific or general purpose) collected as part of an existing or proposed research project are charged to research. Similarly, the costs of analyzing existing data as part of a research project are R&D costs, even when the data were originally collected for some other purpose. The development of new techniques for data collection is also to be considered a research activity.

INFORMATION SERVICES - all work directed to recording, classifying, translating and disseminating scientific and technological information. Included are the operations of scientific and technical libraries, scientific and technological consulting and advisory services, the Patent Office, the publication of scientific journals and monographs, and the organizing of scientific conferences. Grants for the publication of scholarly works are also included. General purpose information services or information services directed primarily towards the general public are excluded, as are general departmental and public libraries.

TESTING AND STANDARDIZATION (natural science only) - work directed towards the establishment of national and international standards for materials, devices, products and processes, the calibration of secondary standards and non-routine quality testing. The development of new measures for standards, or of new methods of measuring or testing, is R&D and should be reported as such. Exclude routine testing such as monitoring radioactivity levels or soil tests before construction.

ECONOMIC AND FEASIBILITY STUDIES (social science only) - investigations of the socio-economic characteristics and implications of specific situations. Such studies are generally limited to a specific problem and involve the application of established social science techniques and methodologies. Examples are a study of the viability of an iron foundry in a foreign country, and a cost-benefit study of a proposed paper manufacturing centre in Manitoba.

FEASIBILITY STUDIES (natural science) - technical investigations of proposed engineering projects to provide additional information required to reach decisions on implementation. Besides feasibility studies per se, the related activity of demonstration projects are to be included. Demonstration projects

involve the operation of scaled-up versions of a facility or process, or data on factors such as costs, operational characteristics, market demand and public acceptance. Projects called 'demonstration projects' but which conform to the definition of R&D should be considered R&D. Once a facility or process is operated primarily to provide a service or to gain revenue, rather than as a demonstration, it should no longer be included with feasibility studies.

OPERATIONS AND POLICY STUDIES (social science only) - the analysis and assessment of departmental programs, policies and operations, the activites of units concerned with the continuing analysis and monitoring of external phenomena (e.g. foreign economic statistics, defence and security information) as well as studies to provide an information base for policy development. The work is carried out by specialized units in some government departments, by consultants, by royal commissions and by task forces.

EDUCATION SUPPORT - grants to individuals or institutions intended to support the post-secondary education of students in either technology and the natural sciences or the social sciences and humanities. Grants intended primarily to support the research of individuals at universities are either R&D grants or research fellowhips.

PROJECT OFFICERS ARE TO CONSIDER THE APPROPRIATE SCIENCE AND THE MOST SUITABLE CATEGORY UNDER EITHER R&D OR RSA, AND ENTER IN THE BOX PROVIDED THE APPROPRIATE NUMBER FROM 22 TO 45.

REF.#	NOM CIE	OGN.T	TITRE
395	AC STATPOWER INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
130	ACRES CONSULTING SERVICES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
423	ADGA (QUEBEC) LTD.	5	CANADIAN INDUSTRY - CONSULTANTS
465	AERCOUSTICS ENGINEERING LTD.	5	CANADIAN INDUSTRY - CONSULTANTS
537	AIR BC	7	CANADIAN INDUSTRY - OPERATORS
246	AIR SPECIALITY CONSULTANTS	5	CANADIAN INDUSTRY - CONSULTANTS
467	AIR TREK SYSTEMS LTD.	6	CANADIAN INDUSTRY - MANUFACTURERS
133	ALBERY,PULLERITS,DICKSON & LTD	5	CANADIAN INDUSTRY - CONSULTANTS
543	ALCAN INTERNATIONAL LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
134	ALPHATEXT	8	CANADIAN INDUSTRY - OTHERS
287	ANDREW ANTENNA CO. LTD.	6	CANADIAN INDUSTRY - MANUFACTURERS
119	APPLIED AI SYSTEMS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
137	ARCTEC CANADA LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
261	ARCTEC NEWFOUNDLAND LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
117	ARCTIC RESEARCH & DEVELOPMENT	5	CANADIAN INDUSTRY - CONSULTANTS
554	ARCTIC SCIENCES LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
292	ARNO KEINONEN ARCTIC CONS.INC.	999	AIP/RFP (WHEN CONTRACTOR NOT IDENTIFIED)
411	ARROW STEEL INDUSTRIES LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
141	ASSOC. DU CAMIONNAGE DU QUEBEC	4	OTHER NON - PROFIT INSTITUTES
422	ATARA INCORPORATED	6	CANADIAN INDUSTRY - MANUFACTURERS
548	AUDOR COMMUNICATION INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
138	AVIATION PLANNING ASSOCIATES	5	CANADIAN INDUSTRY - CONSULTANTS
277	AVIATION PLANNING SERVICES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
436	B. HELM ASSOCIATES, LTD.	5	CANADIAN INDUSTRY - CONSULTANTS
146	B.C. HYDRO	8	CANADIAN INDUSTRY - OTHERS
451	B.H. LEVELTON & ASSOCIATES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
204	BARRINGER RESEARCH LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
293	BATTELLE MEMORIAL INSTITUTE	9	ALL FOREIGN PERFORMERS
351	BAYLY ENGINEERING LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
131	BEAUCHEMIN,BEATON,LAPOINTE INC	5	CANADIAN INDUSTRY - CONSULTANTS
142	BEHAVIOURAL TEAM	5	CANADIAN INDUSTRY - CONSULTANTS
357	BELL AEROSPACE CANADA TEXTRON	6	CANADIAN INDUSTRY - MANUFACTURERS
450	BERT VAN LEEUWEN INDUSTRIAL	5	CANADIAN INDUSTRY - CONSULTANTS
288	BINARY COMMUNICATIONS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
498	BLACK & MCDONALD LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
425	BOMBARDIER INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
144	BOMBARDIER-MLW LTEE	6	CANADIAN INDUSTRY - MANUFACTURERS
167	BOSTON, HENRY, QUINN ASSOC.LTD	5	CANADIAN INDUSTRY - CONSULTANTS
370	BRADLEY AIR SERVICES	6	CANADIAN INDUSTRY - MANUFACTURERS
268	BRITISH COLUMBIA RAILWAY	7	CANADIAN INDUSTRY - OPERATORS
496	BRITISH COLUMBIA TRANSIT	7	CANADIAN INDUSTRY - OPERATORS
224	BRITISH RAIL ENGINEERING LTD.	9	ALL FOREIGN PERFORMERS
145	BROWN BOVERI CANADA INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
474	BTM INTERNATIONAL INC.	5	CANADIAN INDUSTRY - CONSULTANTS
226	C-TECH LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
229	C.E. BERTHIAUME TECHNOLOGIES	5	CANADIAN INDUSTRY - CONSULTANTS
233	CAE ELECTRONICS LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
147	CANADAIR LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
446	CANADIAN ASTRONAUTICS LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
461	CANADIAN ELECTRICAL ASSOC.-CEA	4	OTHER NON - PROFIT INSTITUTES
483	CANADIAN MARINE DRILLING LTD	7	CANADIAN INDUSTRY - OPERATORS
150	CANADIAN PACIFIC LIMITED	7	CANADIAN INDUSTRY - OPERATORS

REF.#	NOM CIE	OGN.T	TITRE
113	CANADIAN STANDARDS ASSOCIATION	4	OTHER NON - PROFIT INSTITUTES
149	CANADIAN TRUCKING ASSOCIATION	4	OTHER NON - PROFIT INSTITUTES
490	CANADIAN URBAN TRANSIT	4	OTHER NON - PROFIT INSTITUTES
354	CANARCTIC SHIPPING LTD	7	CANADIAN INDUSTRY - OPERATORS
408	CANATRANS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
463	CANAVIA TRANSIT INC.	7	CANADIAN INDUSTRY - OPERATORS
399	CANFIN ARCTIC CONSULTANTS LTD,	5	CANADIAN INDUSTRY - CONSULTANTS
201	CANPOLAR CONSULTANTS LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
163	CANPOLAR CONSULTANTS LTD	5	CANADIAN INDUSTRY - CONSULTANTS
217	CANROAD TRANSPORTATION	4	OTHER NON - PROFIT INSTITUTES
449	CANRON INCORPORATED	6	CANADIAN INDUSTRY - MANUFACTURERS
478	CANUS TECHNICAL SERVICES CORP.	5	CANADIAN INDUSTRY - CONSULTANTS
414	CAPEHURST INTERNATIONAL INC.	5	CANADIAN INDUSTRY - CONSULTANTS
527	CARGOMODE INC./CARGOFAX INC.	5	CANADIAN INDUSTRY - CONSULTANTS
244	CARLETON UNIVERSITY	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
106	CDN NATL. INST. FOR THE BLIND	4	OTHER NON - PROFIT INSTITUTES
407	CENTRE RECH. & CONTROLE APPLI	5	CANADIAN INDUSTRY - CONSULTANTS
433	CENTRE RECHERCHE TRANSPORTS	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
388	CHRYSLER CANADA LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
556	CITY OF EDMONTON	11	MUNICIPALITY
546	CLIFTON ASSOCIATES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
514	CN MARINE	7	CANADIAN INDUSTRY - OPERATORS
155	CN RAIL	7	CANADIAN INDUSTRY - OPERATIORS
154	CN RAIL RESEARCH CENTRE	7	CANADIAN INDUSTRY - OPERATORS
517	CN RLY CO. - OR & IE	7	CANADIAN INDUSTRY - OPERATORS
479	CNG FUEL SYSTEMS LTD.,	5	CANADIAN INDUSTRY - CONSULTANTS
418	COALITION PROV. ORG. HANDICAPP	5	CANADIAN INDUSTRY - CONSULTANTS
214	COLDSTREAM MARITIME INC.	5	CANADIAN INDUSTRY - CONSULTANTS
390	COMINCO LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
487	COMMUNICATIONS GILLIES INC.	8	CANADIAN INDUSTRY - OTHERS
192	COMPENGSERV LTD.	6	CANADIAN INDUSTRY - MANUFACTURERS
318	CONCORDIA UNIVERSITY	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
459	CONTROLE INDUSTRIE	6	CANADIAN INDUSTRY - MANUFACTURERS
529	COSIGMA INC.	5	CANADIAN INDUSTRY - CONSULTANTS
165	CP CONSULTING SERVICES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
516	CRIQ	4	OTHER NON - PROFIT INSTITUTES
136	CTF SYSTEMS INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
534	D. NEUMANN & ASSOCIATES	8	CANADIAN INDUSTRY - OTHERS
207	D.F.DICKINS ASSOCIATES LTD.	5	CANADIAN INDUSTRY - CONSULTANTS
168	DE HAVILLAND AIRCRAFT CO. CAN.	6	CANADIAN INDUSTRY - MANUFACTURERS
170	DE LEUW CATHER CANADA LTD	5	CANADIAN INDUSTRY - CONSULTANTS
151	DELUC CONSULTANTS	5	CANADIAN INDUSTRY - CONSULTANTS
116	DEPT. OF NATIONAL DEFENCE	8	CANADIAN INDUSTRY - OTHERS
457	DET NORSKE VERITAS	5	CANADIAN INDUSTRY - CONSULTANTS
309	DIALOG INFORMATION SERVICES IN	9	ALL FOREIGN PERFORMERS
104	DIGI-PLUS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
171	DIGITAL EQUIPMENT OF CANADA	6	CANADIAN INDUSTRY - MANUFACTURERS
173	DILWORTH,SECORD,MEAGHER&ASSOC	5	CANADIAN INDUSTRY - CONSULTANTS
484	DOME PETROLEUM LIMITED	7	CANADIAN INDUSTRY - OPERATORS
194	DOMEX INC.	8	CANADIAN INDUSTRY - OTHERS
175	DOMINION MARINE ASSOCIATION	4	OTHER NON - PROFIT INSTITUTES
506	DONALD CARTER, D. SC.,	5	CANADIAN INDUSTRY - CONSULTANTS

REF.#	NOM CIE	OSM.I	TITRE
364	DSMA ATCON LTD	5	CANADIAN INDUSTRY - CONSULTANTS
444	DSMA INTERNATIONAL INC.,	5	CANADIAN INDUSTRY - CONSULTANTS
285	DTI TELECOM INC.	5	CANADIAN INDUSTRY - CONSULTANTS
176	DYNAMIC SCIENCES LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
481	EBA ENGINEERING CONSULTANTS LT	5	CANADIAN INDUSTRY - CONSULTANTS
424	ECONOSULT INC.	5	CANADIAN INDUSTRY - CONSULTANTS
439	ELECTRIC VEHICLE ASSOCIATION	4	OTHER NON - PROFIT INSTITUTES
471	ENE KANNEL	8	CANADIAN INDUSTRY - OTHERS
515	ENGEL & TOWNSEND	5	CANADIAN INDUSTRY - CONSULTANTS
177	EPSILON DATA SYSTEMS LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
283	ETKIN, DEAN	8	CANADIAN INDUSTRY - OTHERS
401	EYRETECHNICS LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
143	F.G.BERCHA & ASS.(ALBERTA)LTD.	5	CANADIAN INDUSTRY - CONSULTANTS
348	FENCO CONSULTANT LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
509	FISHERIES RESOURCE DEVEL. LTD	5	CANADIAN INDUSTRY - CONSULTANTS
110	FOCAL MARINE LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
235	FOLIOGRAPH COMMUNICATION	8	CANADIAN INDUSTRY - OTHERS
191	FOREST ENG.RESEARCH INSTITUTE	4	OTHER NON - PROFIT INSTITUTES
160	FRIDEV-CONCOOL	5	CANADIAN INDUSTRY - CONSULTANTS
525	FUTUR BYTE	8	CANADIAN INDUSTRY - OTHERS
502	G.D. HAMILTON & ASSOCIATES	5	CANADIAN INDUSTRY - CONSULTANTS
380	GENTEC INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
290	GEOTECHNICAL RESOURCES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
179	GERMAN & MILNE INC.	5	CANADIAN INDUSTRY - CONSULTANTS
109	GESTION DE PHILIMONT INC.	5	CANADIAN INDUSTRY - CONSULTANTS
536	GIRO	5	CANADIAN INDUSTRY - CONSULTANTS
180	GLENAYRE ELECTRONICS LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
524	GOLDER ASSOCIATES (EASTERN	5	CANADIAN INDUSTRY - CONSULTANTS
473	GOLDER ASSOCIATES CONSULTING	5	CANADIAN INDUSTRY - CONSULTANTS
384	GSM TAXI LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
181	GUILLON / DESIGNERS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
182	GUILLON SMITH MARQUART	5	CANADIAN INDUSTRY - CONSULTANTS
184	H G ENGINEERING LTD	5	CANADIAN INDUSTRY - CONSULTANTS
435	HIGHWAY PRODUCTS INTERNATIONAL	6	CANADIAN INDUSTRY - MANUFACTURERS
183	HOVEY & ASSOCIATES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
203	HUMAN FACTORS NORTH	5	CANADIAN INDUSTRY - CONSULTANTS
347	HYCARB ENGINEERING LTD	5	CANADIAN INDUSTRY - CONSULTANTS
555	HYMARC ENGINEERING LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
185	IBI GROUP	5	CANADIAN INDUSTRY - CONSULTANTS
284	ICE CONTROL ENTREPRISES INC.	7	CANADIAN INDUSTRY - OPERATIORS
447	IIASA-INTERNATIONAL INSTITUTE	4	OTHER NON - PROFIT INSTITUTES
220	IMC MANAGEMENT CONSULTANTS INC	5	CANADIAN INDUSTRY - CONSULTANTS
105	IMPERIAL OIL LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
228	INDAL TECHNOLOGIES INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
186	INDUSTRAN SERVICES LIMITED	8	CANADIAN INDUSTRY - OTHERS
227	INDUSTRIAL LIFE TECHNICAL	8	CANADIAN INDUSTRY - OTHERS
238	INFOLINK CONSULTANTS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
120	INFOMART	8	CANADIAN INDUSTRY - OTHERS
270	INNOTECH AVIATION	6	CANADIAN INDUSTRY - MANUFACTURERS
187	INNOVATIVE VENTURES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
468	INSTITUTE OF OCEAN SCIENCES	4	OTHER NON - PROFIT INSTITUTES
505	INTERA TECHNOLOGIES LTD	8	CANADIAN INDUSTRY - OTHERS

REF.#	NOM CIE	OGN.T	TITRE
189	INTERCAN LOGISTICAL SERVICES	5	OTHER FEDERAL GOVERNMENT
339	INTERGROUP CONSULTING ECONOMIS	5	CANADIAN INDUSTRY - CONSULTANTS
279	INTERLEAF CANADA INC.	8	CANADIAN INDUSTRY - OTHERS
394	INTERLOGUE ASSOCIATES	5	CANADIAN INDUSTRY - CONSULTANTS
242	INTERNATIONAL ROAD DYNAMICS	6	CANADIAN INDUSTRY - MANUFACTURERS
440	INUIT TAPIRISAT OF CANADA	4	OTHER NON - PROFIT INSTITUTES
164	J.C. KINGSTON	5	CANADIAN INDUSTRY - CONSULTANTS
231	JAMES F. HICKLING MANAGEMENT	5	CANADIAN INDUSTRY - CONSULTANTS
398	JEFRAN SERVICE DE TRADUCTION	8	CANADIAN INDUSTRY - OTHERS
321	JONES KIRWAN, ASSOCIATES	5	CANADIAN INDUSTRY - CONSULTANTS
438	JOUKO A. PARVIAINEN & ASSOC.	5	CANADIAN INDUSTRY - CONSULTANTS
445	KER-TRAIN SYSTEMS LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
107	KOM INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
169	L.WEATHERBY/BIBLIOGRAPHICS INC	8	CANADIAN INDUSTRY - OTHERS
437	LAVALIN INC.	5	CANADIAN INDUSTRY - CONSULTANTS
118	LEIGH INSTRUMENTS LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
174	LES DESIGNERS DOUGLAS BALL INC	5	CANADIAN INDUSTRY - CONSULTANTS
269	LES SERV. PROF. WARNOCK HERSEY	5	CANADIAN INDUSTRY - CONSULTANTS
193	LES SYSTEMES SUR MESURE PB INC	8	CANADIAN INDUSTRY - OTHERS
139	LINAMAR MACHINE LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
376	LLOYD'S REGISTER OF SHIPPING	7	CANADIAN INDUSTRY - OPERATORS
512	LUGANO ENTREPRISES	5	CANADIAN INDUSTRY - CONSULTANTS
316	LYON DOUG	8	CANADIAN INDUSTRY - OTHERS
210	M.SHINBROT INC.	5	CANADIAN INDUSTRY - CONSULTANTS
190	MACLAREN PLANSEARCH LTD	5	CANADIAN INDUSTRY - CONSULTANTS
385	MANOP SERVICES LTD.	5	CANADIAN INDUSTRY - CONSULTANTS
387	MARATHON ELECTRIC VEHICLES INC	6	CANADIAN INDUSTRY - MANUFACTURERS
523	MARGARET MCKAY AND ASSOCIATES	8	CANADIAN INDUSTRY - OTHERS
492	MARSHALL MACKLIN MONAGHAN LTD	5	CANADIAN INDUSTRY - CONSULTANTS
417	MARTEC LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
493	MARYSTOWN SHIPYARD LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
391	MATHEMATICAL CONSULTANTS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
196	MAUGHAN RLY CNSLTG SERV INC.	5	CANADIAN INDUSTRY - CONSULTANTS
247	MCGILL UNIV COMPUTING SERVICES	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
248	MCGILL UNIVERSITY	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
249	MCMASTER UNIVERSITY	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
464	MECHRON ENERGY LTD	5	CANADIAN INDUSTRY - CONSULTANTS
482	MELVILLE MARINE CONSULTANCY	5	CANADIAN INDUSTRY - CONSULTANTS
353	MELVILLE SHIPPING LTD	5	CANADIAN INDUSTRY - CONSULTANTS
431	MICHAEL M.ROSS & ASSOC. LTD	5	CANADIAN INDUSTRY - CONSULTANTS
159	MICHAEL POOLE CONSULTANT	5	CANADIAN INDUSTRY - CONSULTANTS
294	MICHAUD, LUC	5	CANADIAN INDUSTRY - CONSULTANTS
547	MICHEL CHAMPAGNE	8	CANADIAN INDUSTRY - OTHERS
469	MICRONAV LTD.,	6	CANADIAN INDUSTRY - MANUFACTURERS
289	MILLE MOTS	999	AIP/RFP (WHEN CONTRACTOR NOT IDENTIFIED)
448	MMS MAN-MACHINE SYST. CONS.INC	5	CANADIAN INDUSTRY - CONSULTANTS
416	MOHAWK OIL CO. LTD	5	CANADIAN INDUSTRY - CONSULTANTS
494	MOLI ENERGY LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
330	MONTREAL ENGINEERING CO LTD	5	CANADIAN INDUSTRY - CONSULTANTS
240	MOTOR COACH INDUSTRIES	6	CANADIAN INDUSTRY - MANUFACTURERS
202	MPB TECHNOLOGIES INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
365	MPI PRODUCTIONS LTD	8	CANADIAN INDUSTRY - OTHERS

REF.#	NOM CIE	OGN.T	TITRE
373	MRS. S. WONG	8	CANADIAN INDUSTRY - OTHERS
545	MVM COMMUNICATIONS	8	CANADIAN INDUSTRY - OTHERS
157	MacDONALD DETTWILER & ASS. LTD	999	AIP/RFP (WHEN CONTRACTOR NOT IDENTIFIED)
518	NEO-KEN ELECTRIC	6	CANADIAN INDUSTRY - MANUFACTURERS
460	NORDCO LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
428	NORR AIRPORT PLANNING	5	CANADIAN INDUSTRY - CONSULTANTS
314	NORTH WATER NAVIGATION LTD	7	CANADIAN INDUSTRY - OPERATORS
510	NORTHERN AIRBORNE TECH. LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
472	NOVAL TECHNOLOGIES LTD.	6	CANADIAN INDUSTRY - MANUFACTURERS
476	NUNASI CORPORATION	8	CANADIAN INDUSTRY - OTHERS
303	O'CONNELL, D.	8	CANADIAN INDUSTRY - OTHERS
291	OFFSHORE MECHANICS LTD	999	AIP/RFP (WHEN CONTRACTOR NOT IDENTIFIED)
239	OFFSHORE SYSTEMS LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
103	OLAM SERVICE CAN LIBRARY ASSN	4	OTHER NON - PROFIT INSTITUTES
135	OMNITECH STEEL WORKS LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
153	ONTARIO CENTRE FOR AUTOMOTIVE	4	OTHER NON - PROFIT INSTITUTES
327	ONTARIO MOT COMMUNICATIONS	4	OTHER NON - PROFIT INSTITUTES
264	ONTARIO RESEARCH FOUNDATION	4	OTHER NON - PROFIT INSTITUTES
549	ORACLE COMMUNICATIONS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
213	P&W AIRCRAFT OF CANADA LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
378	PACIFIC COACH LINES LTD.,	7	CANADIAN INDUSTRY - OPERATORS
386	PAPACHRISTIDIS MARITIME INC.	8	CANADIAN INDUSTRY - OTHERS
404	PEACOCK INC.	8	CANADIAN INDUSTRY - OTHERS
206	PEAT, MARWICK & PARTNERS	5	CANADIAN INDUSTRY - CONSULTANTS
406	PEIRCE OPERATIONAL DYNAMICS	8	CANADIAN INDUSTRY - OTHERS
429	PELCHAT GRENIER GEO-MARINE INC	6	CANADIAN INDUSTRY - MANUFACTURERS
218	PERGAMON ORBIT INFOLINE INC.	999	AIP/RFP (WHEN CONTRACTOR NOT IDENTIFIED)
526	PERMATRACK SYSTEMS INC.	5	CANADIAN INDUSTRY - CONSULTANTS
396	PETER POOLE CONSULTING SERVICE	5	CANADIAN INDUSTRY - CONSULTANTS
355	PETRO CANADA EXPLORATIONS INC	7	CANADIAN INDUSTRY - OPERATORS
452	PNEUS METRIX	6	CANADIAN INDUSTRY - MANUFACTURERS
166	POLAR SEA RESEARCH LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
466	POLAR TECH LTD.	6	CANADIAN INDUSTRY - MANUFACTURERS
412	PORT ARTHUR SHIPBUILDING CO.	6	CANADIAN INDUSTRY - MANUFACTURERS
211	PRESAGE RESEARCH LTD	5	CANADIAN INDUSTRY - CONSULTANTS
392	PREVOST CAR INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
271	PROVINCE OF ALBERTA	4	OTHER NON - PROFIT INSTITUTES
272	PROVINCE OF ONTARIO	4	OTHER NON - PROFIT INSTITUTES
344	PROVINCE OF P.E.I.	4	OTHER NON - PROFIT INSTITUTES
273	PROVINCE OF QUEBEC	4	OTHER NON - PROFIT INSTITUTES
274	PROVINCE OF QUEBEC - MOT	4	OTHER NON - PROFIT INSTITUTES
275	PROVINCE OF SASKATCHEWAN	4	OTHER NON - PROFIT INSTITUTES
178	PROVOST CARTAGE	6	CANADIAN INDUSTRY - MANUFACTURERS
539	QL SYSTEMS LTD	8	CANADIAN INDUSTRY - OTHERS
280	QUEEN'S UNIVERSITY	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
250	QUEEN'S UNIVERSITY - CIGGT	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
219	R F WEBB CORPORATION LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
221	R.S. WALLACE & ASSOCIATES LTD	999	AIP/RFP (WHEN CONTRACTOR NOT IDENTIFIED)
332	RAILWAY ASSOCIATION OF CANADA	4	OTHER NON - PROFIT INSTITUTES
237	RAYTHEON CANADA LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
281	REID CROWTHER AND PARTNERS LTD	5	CANADIAN INDUSTRY - CONSULTANTS
311	RENDELL PALMER & TRITTON	5	CANADIAN INDUSTRY - CONSULTANTS

REF.#	NOM CIE	OGN.T	TITRE
286	RMS INDUSTRIAL CONTROLS INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
205	ROAD AND TRANSP.ASS.OF CANADA	4	OTHER NON - PROFIT INSTITUTES
383	ROBERT ALLAN LTD.,	5	CANADIAN INDUSTRY - CONSULTANTS
499	ROLLS-ROYCE CANADA LTD.	6	CANADIAN INDUSTRY - MANUFACTURERS
266	ROWAN WILLIAMS DAVIES & IRWIN	5	CANADIAN INDUSTRY - CONSULTANTS
172	ROY BALL ASSOCIATES LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
188	ROYAL MILITARY COLLEGE (RMC)	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
542	RUTENBERG DESIGN INC.	5	CANADIAN INDUSTRY - CONSULTANTS
132	SABLE MARITIME LTD	5	CANADIAN INDUSTRY - CONSULTANTS
368	SANDRA MURPHY	8	CANADIAN INDUSTRY - OTHERS
265	SASKATCHEWAN RESEARCH COUNCIL	4	OTHER NON - PROFIT INSTITUTES
222	SATEL CONSULTANTS LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
480	SCAN MARINE INC.	5	CANADIAN INDUSTRY - CONSULTANTS
455	SCANNAR ENGINEERING LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
199	SCINTREX LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
123	SDC INFORMATION SERVICES	9	ALL FOREIGN PERFORMERS
427	SEASPAN DEVELOPMENT CO. LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
511	SEATRONICS TECHNOLOGIES LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
486	SEIMAC LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
150	SESHADRI SANKAR INC.	5	CANADIAN INDUSTRY - CONSULTANTS
208	SHAKO ENRG.	5	CANADIAN INDUSTRY - CONSULTANTS
215	SIGNALCOM CANADA CORPORATION	6	CANADIAN INDUSTRY - MANUFACTURERS
538	SIMON FRASER UNIVERSITY	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
403	SMS INCORPORATED	5	CANADIAN INDUSTRY - CONSULTANTS
374	SNC INC.	5	CANADIAN INDUSTRY - CONSULTANTS
263	SNC/DELUC/CO-ENTREPRISES	5	CANADIAN INDUSTRY - CONSULTANTS
462	SOCIETE INTERCAN LTEE	5	CANADIAN INDUSTRY - CONSULTANTS
405	SPACE FUEL GAS PRODUCTS LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
369	SPACE HOVERCRAFT LTD	6	CANADIAN INDUSTRY - MANUFACTURERS
245	SPAR AEROSPACE LTD	999	AIP/RFP (WHEN CONTRACTOR NOT IDENTIFIED)
209	SRI INTERNATIONAL	9	ALL FOREIGN PERFORMERS
430	STELNER DEVEL. & MANUF. CO LTD	8	CANADIAN INDUSTRY - OTHERS
230	SWAN WOOSTER ENGNRING CO LTD	5	CANADIAN INDUSTRY - CONSULTANTS
195	SYPHER MUELLER INTL. INC.	5	CANADIAN INDUSTRY - CONSULTANTS
232	SYSTEMS DIMENSIONS LTD (SDL)	5	CANADIAN INDUSTRY - CONSULTANTS
421	SYSTEMS STUDIES REGISTERED	5	CANADIAN INDUSTRY - CONSULTANTS
161	TEKTREND INTERNATIONAL INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
236	TES LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
198	THE ARNOTT DESING GROUP INC.	5	CANADIAN INDUSTRY - CONSULTANTS
513	THE B.C. MINISTRY OF ENERGY	4	OTHER NON - PROFIT INSTITUTES
426	THE EXPO 86 CORPORATION	4	OTHER NON - PROFIT INSTITUTES
530	THE KINGSTON PARTNERSHIP	5	CANADIAN INDUSTRY - CONSULTANTS
500	THE OTTAWA-CARLETON REGIONAL	7	CANADIAN INDUSTRY - OPERATORS
282	THOMPSON-HICKLING INC.	5	CANADIAN INDUSTRY - CONSULTANTS
276	TORONTO TRANSIT COMMISSION	7	CANADIAN INDUSTRY - OPERATORS
521	TRANSITEC INDUSTRIES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
197	TRANSP. TECHNOLOGY LTD.-UTDC	6	CANADIAN INDUSTRY - MANUFACTURERS
225	TRANSPORTATION TECHNOLOGY LTD.	5	CANADIAN INDUSTRY - CONSULTANTS
140	TRANSVISION CONSULTANTS LTD	5	CANADIAN INDUSTRY - CONSULTANTS
458	TRANSYT CANADA INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
531	TRIMAC CONSULTING SERVICES LTD	5	CANADIAN INDUSTRY - CONSULTANTS
495	TRINAT CONSULTANTS INCORPORATE	8	CANADIAN INDUSTRY - OTHERS

REF.#	NOM CIE	OGN.T	TITRE
400	UNIROYAL LIMITED	6	CANADIAN INDUSTRY - MANUFACTURERS
501	UNIVERSITE LAVAL	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
251	UNIVERSITY OF BRITISH COLUMBIA	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
255	UNIVERSITY OF CALGARY	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
256	UNIVERSITY OF GUELPH	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
252	UNIVERSITY OF MANITOBA	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
257	UNIVERSITY OF MONTREAL-C.R.T.	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
254	UNIVERSITY OF NEW BRUNSWICK	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
258	UNIVERSITY OF OTTAWA	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
156	UNIVERSITY OF SASKATCHEWAN	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
259	UNIVERSITY OF TORONTO	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
260	UNIVERSITY OF TORONTO - UTIAS	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
253	UNIVERSITY OF TORONTO-YORK	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
241	URBAN TRANSP.DEV.CORP. - UTDC	5	CANADIAN INDUSTRY - CONSULTANTS
200	UTDC INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
102	UTLAS INC.	7	CANADIAN INDUSTRY - OPERATIORS
262	VALMET ARCTIC CANADA LTD	5	CANADIAN INDUSTRY - CONSULTANTS
162	VEHICULES & ROBOTS VITRI INC.	5	CANADIAN INDUSTRY - CONSULTANTS
129	VIA RAIL CANADA INC.	7	CANADIAN INDUSTRY - OPERATORS
443	VIATEC RESOURCE SYSTEMS INC.	6	CANADIAN INDUSTRY - MANUFACTURERS
223	VIRTUAL PROTOTYPES INC.	8	CANADIAN INDUSTRY - OTHERS
532	VOLKER CRAIG LTD.	6	CANADIAN INDUSTRY - MANUFACTURERS
336	VOYAGEUR ENTREPRISES LTD	7	CANADIAN INDUSTRY - OPERATORS
212	VOYAGEUR INC.	7	CANADIAN INDUSTRY - OPERATIORS
552	VULCAN INDUSTRIAL PACKAGING	6	CANADIAN INDUSTRY - MANUFACTURERS
362	W-ION ASSOCIATES	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
432	W.F. BAIRD & ASSOCIATES	5	CANADIAN INDUSTRY - CONSULTANTS
152	W.H. CANDLISH	5	CANADIAN INDUSTRY - CONSULTANTS
397	W.R. DAVIS ENGINEERING LIMITED	5	CANADIAN INDUSTRY - CONSULTANTS
454	WARNOCK HERSEY	5	CANADIAN INDUSTRY - CONSULTANTS
216	WARTSILA ARCTIC INC.	5	CANADIAN INDUSTRY - CONSULTANTS
497	WATERLOO RESEARCH INSTITUTE	3	UNIVERSITIES AND UNIVERSITY INSTITUTES
410	WED TRANSPORTATION SYSTEMS INC	7	CANADIAN INDUSTRY - OPERATORS
519	WELDING INSTITUTE OF CANADA	6	CANADIAN INDUSTRY - MANUFACTURERS
503	WEST PARK RESEARCH	4	OTHER NON - PROFIT INSTITUTES
243	WHITEGAITES ENGINEERING LTD	5	CANADIAN INDUSTRY - CONSULTANTS
148	WINNIPEG COACH SALES	6	CANADIAN INDUSTRY - MANUFACTURERS

CHAPTER 3

RESOURCE ALLOCATION AND AUTHORIZATION PHASE

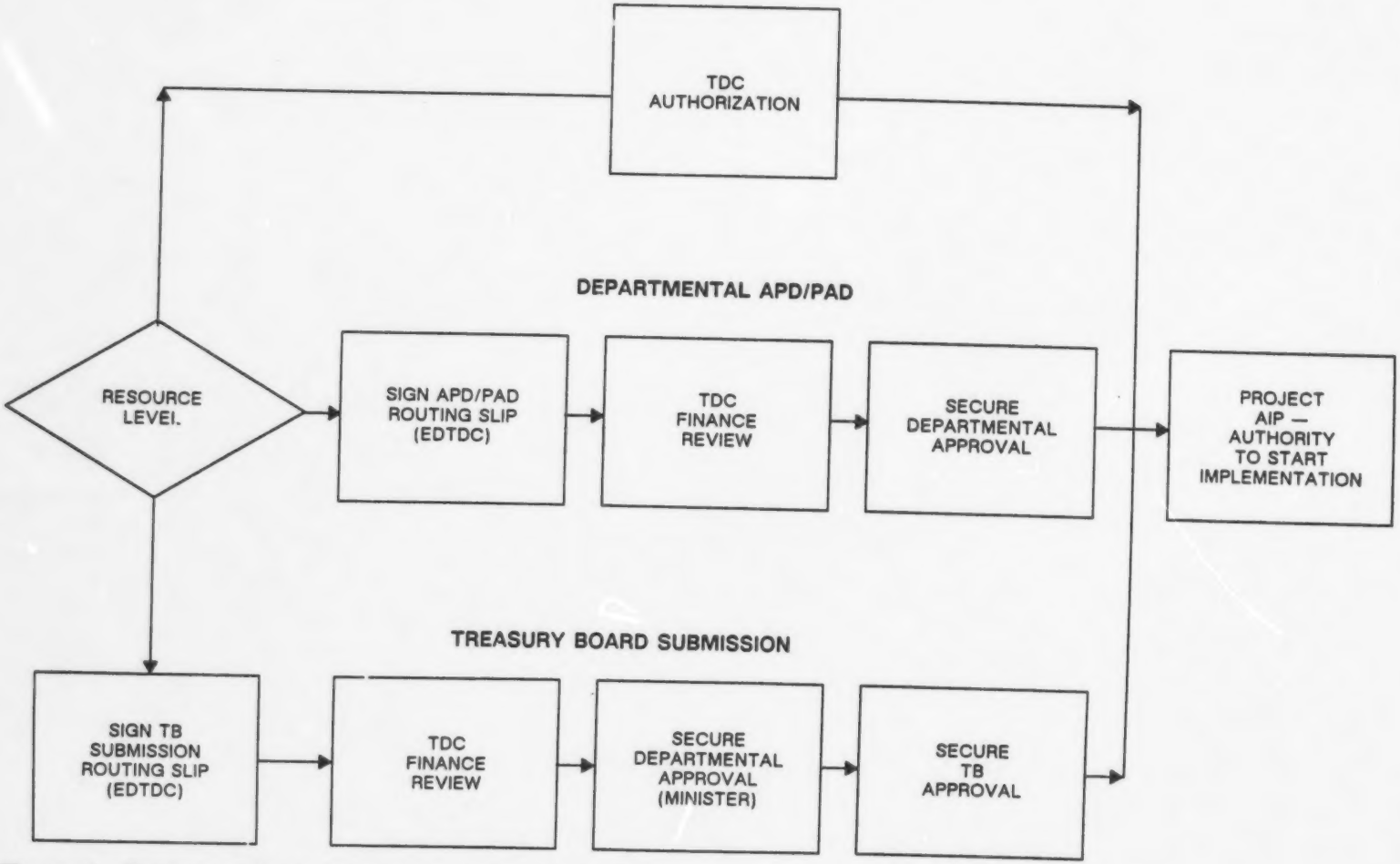

Figure 3 Resource Allocation and Authorization Phase

SCOPE

(see Figure 3)

This chapter describes the processes, after the approval by EDTDC of a PJ, for a project that requires other levels of authorization before a contract can be initiated.

POLICY

The Project Officer is responsible for securing appropriate approval for each project before in-house or contract work begins. In order that sufficient account be taken of all contracting risks and the effects of the contracting action on related government programs, projects above established levels of magnitude and complexity require departmental approval and/or the collective agreement of Ministers or delegates on:

- approval of a planned program,
- approval in principle,
- amendment of a project.

TDC Project Officers should consult with TDC Finance concerning the need for APD/PAD documentation within TC, how this relates to TDC activities, current routing requirements, and other related TC directives on the subject.

BACKGROUND

The APD is the vehicle by which approval-in-principle is sought from TC management early in the life-cycle of the proposed program. The PAD is the vehicle by which program approval is sought from TC management for a fully defined project.

APDs are raised as soon as the objectives of the project are identified and alternative ways of meeting these objectives are analyzed. Once APD approval has been obtained, a PAD should be raised as soon as additional information is available.

NOTE: If sufficient detailed information is available, a PAD can be prepared without an APD.

Since the requirements of the APD and PAD differ only in the amount of detail required, one set of documents performs both functions (see Appendix 3-1).

PROCEDURES

3.10 GENERATING AN APPROVAL-IN-PRINCIPLE DOCUMENT (APD) AND PROGRAM APPROVAL DOCUMENT (PAD)

3.10.1 Generating an APD

APDs may be developed at any time during the fiscal year. Projects should be planned at least two years in advance.

Responsibility	Action
Project Officer	1. Become familiar with: — the documents required (see Appendix 3-1), — the use that will be made of them outside TDC, — the signing authorities required (see Appendix 2-6), — the routing of the documentation required to secure the appropriate signatures (consult TDC Finance).
	2. Prepare original and five copies of APD.
	3. Prepare covering memorandum addressed to DGRD for signature of EDTDC briefly summarizing the content of the APD.
	4. Attach supporting documentation such as PJ, tentative cost-sharing agreement, tasking memorandum, etc.
	5. Route all copies of APD and memorandum for TDC internal review as follows: — Division Chief, — TDC Finance, — EDTDC.
Division Chief	6. Review general content and format. Return to Project Officer for modification and re-submission, if necessary.

7. Submit all copies in folder to TDC Finance.

TDC Finance

8. Review financial data.

9. Ensure project number is assigned.

10. Forward all copies in folder to EDTDC.

EDTDC

11. Review content of APD/PAD and, if acceptable, sign memorandum and stamp copies. If unacceptable, return to Project Officer for revision and re-submission as necessary.

12. Forward all copies in folder to TDC Finance.

TDC Finance

13. Forward original plus one copy of both APD/PAD and memorandum to DGRD for review and approval recommendation.

NOTE: In general an APD or PAD will be forwarded to the appropriate R&D committee for review and comment. If there are any other sponsors their signatures shall be added subsequent to DGRD and Assistant Deputy Minister, Policy and Coordination (ADMPC) approval. Consult with TDC Finance.

14. Keep one copy of APD/PAD and memorandum for TDC Finance files.

15. Forward remaining copies of APD/PAD and memorandum in folder to Division Chief for information purposes.

Division Chief

16. Note any comments.

17. Distribute file copies of memorandum.

18. Forward folder to Project Officer.

Project Officer

19. Keep one copy of APD until notification of project approval.

20. When APD is approved, collect the in-depth information necessary to complete a PAD.

3.10.2 Generating a PAD

Projects scheduled to begin in the forecast year should have an approved PAD prior to March 31 of the current fiscal year. Projects beginning in the new year under most funding sources, should have an approved PAD by mid-November of the current fiscal year.

Responsibility	Action
Project Officer	1. Become familiar with: — the documents required, — the use that will be made of them outside TDC, — the signing authorities required (see Appendix 2-6), — the routing of the documentation required to secure the appropriate signatures (consult TDC Finance). 2. Prepare original and five copies of PAD. 3. Prepare a covering memorandum addressed to DGRD for signature of EDTDC briefly summarizing the content of the PAD, referring to the approved APD. 4. Route as for APD (see paragraphs 3.10.1.5 to 18 inclusive above). 5. Keep one copy of PAD until notification of project approval. 6. When PAD is approved, proceed to the next phase as authorized (TB submission or SSC requisition).

3.20 GENERATING TREASURY BOARD (TB) SUBMISSION DOCUMENTATION

The requirement for Treasury Board (TB) approval is defined in Appendix 2-6. A TB submission is preceded by an APD/PAD submission.

Responsibility	Action
Project Officer	1. Become familiar with the documents required and the use that will be made of them outside TDC (consult TDC Finance). 2. Prepare first page of TB submission only (see Appendix 3-2). 3. Determine required level of signing authority (see Appendix 2-6).

4. Prepare covering memorandum (see Appendix 3-3). This memorandum is to include a one-paragraph summary in the other official language.

5. Route TB submission and covering memorandum in covering folder for internal review as follows:
   - Division Chief,
   - TDC Finance,
   - EDTDC,
   - Records Office.

Division Chief

6. Review format and content.

TDC Finance

7. Review financial data and signing authority.

EDTDC

8. Review format and content.

Records Office

9. Register submission in log-book.

10. Prepare required number of copies of covering memorandum and TB submission.

11. Forward original documents in covering folder together with copies to DGRD for coordination.

12. Distribute internal copies to:
    - TDC Administration,
    - TDC Finance,
    - Project Officer.

13. On receipt from DGRD of first page of submission bearing date of submission to TB and signature stamp of signing authority, distribute copies to:
    - TDC Administration,
    - TDC Finance,
    - Project Officer.

14. On receipt from DGRD of first page of approved submission bearing TB approval stamp, or letter of approval from DGRD:
    - record date of receipt,
    - file copy of submission and letter in black binder,
    - make and distribute copies to:
        - TDC Administration,
        - TDC Finance,
        - Project Officer.

Project Officer

15. Initiate required documentation for SSC (see Chapter 4).

NOTE : Until further notice, Treasury Board permits Transport Canada to review and approve some APDs and PADs that would normally require Treasury Board review. For that purpose Transport Canada has formed the Program Control Board (PCB). The organization and process of the PCB is explained in Appendix 3-4. TDC Finance will provide Project Officers with the necessary support in preparing PCB documentation.

CHAPTER 3
APPENDICES

RESOURCE ALLOCATION AND AUTHORIZATION PHASE

Appendix 3-1	APD/PAD Documentation: Sample
Appendix 3-2	Page 1 of TB Submission
Appendix 3-3	Memorandum to Minister for TB Submission: Sample
Appendix 3-4	Program Control Board: DM Circulars

Transport Canada - Transports Canada

PA

APPENDIX 3-1

☐ APPROVAL-IN-PRINCIPLE DOCUMENT
DOCUMENT D'APPROBATION DE PRINCIPE

☑ PROGRAM APPROVAL DOCUMENT
DOCUMENT D'APPROBATION DE PROGRAMME

PREVIOUS APPROVAL / APPROBATION PRÉCÉDENTE				PROJECT NO. - PROJET N°
	APD	☐ YES / OUI	☒ NO / NON	4493, 4494, 4495
	PAD	☐ YES / OUI	☒ NO / NON	AMENDMENT NO. - MODIFICATION N°

PROJECT TITLE - TITRE DU PROJET

Aeronautical Fuel Conservation

Economie en carburant aéronautique

*	START YEAR / ANNÉE DE MISE EN OEUVRE	CAP - IMM ($000)	G & C - S ET C ($000)	ANNUAL - ANNUEL P.O. & M. - P.E. ET E. ($000)	ANNUAL - ANNUELLES PERS. - DU PERS. PY - AP
LA / DA		-	-	-	-
R	1982	-	-	2,731	-

PROGRAM - PROGRAMME	VOTE(S) - CRÉDIT(S)	ACTIVITY - ACTIVITÉ	SUB-ACTIVITY - SOUS ACTIVITE
Departmental Administration	Vote 1	Policy and Coordination	Research and Development

REGION - RÉGION	SITE - EMPLACEMENT	PROVINCE	PRIORITY CRIT. - DE PRIORITÉ	PRIORITY - PRIORITÉ
Quebec	N/A	N/A		

RECOMMEND / APPROVE - RECOMMANDER / APPROUVER	SIGNATURE	DATE
SPONSOR - RESPONSABLE ZCDGB/ACD	Peter L. Eggleton [illegible]	10 Dec. 1981. 13 Jan 1982
GROUP HEAD(S) - CHEF(S) DE GROUPE AC	[illegible]	13/1/82
PROGRAMMING COMMITTEE - COMITÉ DE PROGRAMMATION ACH	[illegible]	16/2/82
MANAGEMENT COMMITTEE - COMITÉ DE GESTION ARA	[illegible]	MAR - 1 1982
DEPUTY MINISTER - SOUS-MINISTRE		
MINISTER - MINISTRE		

08-0217
10-80

* LA LAST APPROVAL / DA DERNIÈRE APPROBATION R RECOMMENDED / RECOMMANDÉ

Transport Canada / Transports Canada

GROUP REVIEW AND SIGN-OFF SHEET / FEUILLE D'EXAMEN ET DE SIGNATURE DU GROUPE

PROJECT NO. - PROJET Nº: N/A

AMENDMENT NO. - MODIFICATION Nº: N/A

CERTIFICATION IS MADE BELOW BY GROUP HEADS OR APPOINTED DELEGATES THAT IMPLICATIONS AFFECTING THEIR AREAS OF RESPONSIBILITY HAVE BEEN ADEQUATELY CONSIDERED AND THAT THERE ARE NO OBJECTIONS TO THE SUBMISSION. AGREEMENT REQUIRES A SIGNATURE ONLY. OBJECTIONS REQUIRE PRELIMINARY COMMENTS AND A POINT OF CONTACT FOR LIAISON.
(Number additional pages 2 (a), 2 (b), etc.)

LES CHEFS DE GROUPE OU LES PERSONNES AUTORISÉES CERTIFIENT CI-DESSOUS AVOIR BIEN PRIS EN CONSIDÉRATION LES RÉPERCUSSIONS SUR LEURS SECTEURS DE RESPONSABILITÉ ET QU'ILS N'ONT PAS D'OBJECTIONS À LA PROPOSITION. UN ACCORD EXIGE UNE SIGNATURE SEULEMENT. LES OBJECTIONS EXIGENT DES OBSERVATIONS PRÉLIMINAIRES ET LE NOM DE L'AGENT DE LIAISON.
(Numéroter les pages supplémentaires 2 (a), 2 (b), etc.)

GROUP - GROUPE	SIGNATURE	DATE
AATA		27 feb 82

COMMENTS - COMMENTAIRES

Transport Canada | Transports Canada

PAG

PROJECT SUBSTANTIATION — JUSTIFICATION DU PROJET

PROJECT NO. - PROJET Nº: N/A

AMENDMENT NO. - MODIFICATION Nº: N/A

PROVIDE FULL SUBSTANTIATION OF THE PROJECT USING THE FOLLOWING HEADINGS AS A GUIDE: PURPOSE, JUSTIFICATION, ALTERNATIVES, COSTS/REVENUES, PERSONNEL, RISKS, IMPLICATIONS, MANAGEMENT.
(Number additional pages 3(a), 3(b), etc.)

JUSTIFIEZ COMPLÈTEMENT LE PROJET EN AYANT RECOURS A RUBRIQUES SUIVANTES: OBJET, JUSTIFICATION, OPTIONS, COÛ RECETTES, PERSONNEL, RISQUES, RÉPERCUSSIONS, GESTION.
(Numéroter les pages supplémentaires 3(a), 3(b), etc.)

Background

In 1977 the Transportation Development Centre (TDC) commissioned three leading Canadian aerospace manufacturers, de Havilland Aircraft of Canada (DHC), Canadair Limited (CL) and Pratt & Whitney Aircraft of Canada (P&WC), to identify by parametric studies possible gains in the energy efficiency of their respective products, and also to recommend specific areas for analytical and experimental research that would lead towards the anticipated gains in energy efficiency.

The individual studies showed typical gains over a ten year period in the neighbourhood of 20 to 30% in the energy efficiency of STOL and conventional transport aircraft of sizes suitable for all-Canadian development, and small turboprop and turbofan engines.

Upon receipt of Treasury Board approval for separate three year programs for each manufacturer TDC entered into contracts with each for specific items of research based on the manufacturer's recommendations. The total estimated cost of the overall program was $3,750,000 shared as follows:

TDC	$1,650,000
Energy R&D Panel	900,000
Contractors	1,200,000
	$3,750,000

One contractor has completed his three-year program and is continuing into an additional year in the same work; a second is in the third year, and a third is about to enter the third year. Energy R&D Panel funds have been committed for work up to the end of FY 81/82. All are meeting technical objectives within allowable budgets, and two new production programs, the P&WC PW 100 Turboprop and the DHC Dash 8 airplane benefit in part from the TDC-sponsored research.

Now that the work described above has demonstrated its worth in more fuel efficient aircraft and engines, it is appropriate to expand the scope by introducing research into air traffic control (ATC) procedures and equipment in order to improve the fuel efficiency of the ATC system.

Accordingly, this PAD now introduces ATC R&D to be performed by Canadian Systems Group (CSG), in addition to continuing the established R&D programs by DHC, CL and P&WC.

ADDITION TO THE ABOVE INFORMATION
E FOLLOWING ANNEXES ARE ATTACHED

LES ANNEXES CI-JOINTES COMPLÈTENT
LES RENSEIGNEMENTS CI-DESSUS.

☐ COST BENEFIT ANALYSIS / ANALYSE COÛTS-BÉNÉFICES

☐ ENVIRONMENT CONSIDERATIONS / CONSIDÉRATIONS RELATIVES À L'ENVIRONNEMENT

☐ ENERGY CONSERVATION ANALYSIS / ANALYSE DE L'ÉCONOMIE DE L'ÉNERGIE

☐ OTHER / AUTRE

(a) Purpose

(i) It is proposed to sponsor an additional three years of research by Canadair into means of improving the fuel efficiency of small transport aircraft for airline or executive service. The broad areas to be covered are:

- Composite materials
- Advanced wing aerodynamics
- New configurations

(ii) It is proposed to sponsor an additional three years of research by De Havilland into means of improving the fuel efficiency of STOL aircraft for feeder airline or remote area service. The broad areas to be covered are:

- Composite materials
- Advanced wing aerodynamics
- Propeller aerodynamics
- Augmentor wing technology

(iii) It is proposed to sponsor an additional three years of research by Pratt & Whitney into means of improving the fuel efficiency of small turboprop and turbofan engines. Work will concentrate on the gas generator turbine (high pressure turbine), which is the single most critical component affecting fuel efficiency, in these general areas:

- Single stage, axial flow turbines
- Two stage, axial flow turbines
- Single stage, mixed flow turbines

(iv) It is proposed to sponsor three years of research by the Canadian Systems Group into means of improving the operation of the air traffic control system to achieve greater fuel efficiency. The broad areas to be covered are:

- Air traffic flow management
- Improved use of airspace
- Dissemination of aeronautical information to aircraft en route

(v) In all cases, the work will include analyses, experimental tests and/or simulation; the end products will be a set of detailed technical reports and an annual summary report from each contractor.

(vi) In order to draw on the talents of existing research teams, the individual projects should start at the beginning of FY 82/83.

(b) Justification

(i) The interests of Transport Canada are served in several ways:

- The Department will be able to improve one of its primary functions, the operation of the ATC system, by reducing the fuel consumed by users of the system while maintaining or improving the system level of safety.
- The department maintains expertise in new technology through involvement with industry based R&D and access to otherwise proprietory R&D results.
- CATA is prepared for future regulatory and licensing requirements raised by innovations concerning design, manufacture or testing of aeronautical products made in Canada.

(ii) The proposed program is responsive to departmental and overall governmental policies in supporting a long term development and investment within industry to put into service both in the air and infrastructure more fuel efficient transportation components and systems.

(iii) The immediate beneficiaries of the aircraft and engine R&D are the three aerospace companies performing the research, who will introduce improvements to their products as a consequence of this work. This will enhance their marketing ability in a competitive world market. Canadian operators will ultimately benefit as improved products enter service, in that fuel consumption for a given task will be reduced. Canadian operators and other users of Canadian airspace will benefit from the ATC R&D. In addition, there may be an opportunity for Canadian avionics manufacturers to introduce products to world markets.

(c) Alternatives

(i) Because the proposed aircraft and engine R&D is a continuation of successful work by specialized teams, no alternative sources exist.

(ii) If TDC does not enter into these 50% shared cost programs, it is presumed that the respective contractors will carry out the research, which they consider essential, at a reduced rate and at their own expense; reducing the rate would delay results and require reductions in size of the existing technical teams. Access to R&D results and appreciation of the state of the art in aeronautical fuel efficiency would not be readily available to TDC and the department. Avenues for influencing technological development in accord with future fuel availability trends in Canada would be diminished.

(iii) If the ATC R&D is not conducted, the present capacity of the Canadian system will diminish due to the imposition of the additional restrictions that will be needed to maintain the existing level of safety.

(iv) The level-of-effort proposed is based upon past experience. If, however, it were considered desirable to change the level to meet national R&D goals (such as a percentage of GNP), the level-of-effort could be modified to meet these goals without major disruption.

(d) Costs (1981 dollars)

The total cost of the aircraft and engine program for three years is estimated to be $3,600,000, shared 50/50 between the contractors and Transport Canada, based on an average cost of $400,000 per contractor per year. The cost of the ATC program, which will be borne entirely by Transport Canada is estimated to be $450,000.

The contractor's share of 50% is consistent with the practice of other federal agencies in negotiating similar contracts; the actual benefits exceed 50% in that the contractors contribute experience and intellectual properties derived elsewhere, but these can not be quantified.

The amount required from TDC annual funds for all projects depends on which of several funding options is available at the time each annual contract is negotiated. These options are influenced by:

(i) the ability of each contractor to apply financial and manpower resources
(ii) the availability of Energy R&D Panels Funds through TDC
(iii) the availability of funds from other federal agencies e.g. NRC (PILP)

The total TDC share is estimated to be $350,000 per year on average, for a total of 1,050,000 over three years.

(e) Personnel

No change in personnel requirements is required by TDC to manage the proposed program.

(f) Risks

Similar research on a larger scale and applicable to much larger aircraft and engines is being performed in the U.S.A. and other countries. This work is, in some respects, an adaptation of newly developed foreign technology to the needs of aircraft and engines of a much smaller size consistent with Canadian manufacturing resources. In the light of this, coupled with the successful research already completed by all three manufacturers and their expressed views on continuing research, (see Appendices A, B and C), there is a high probability of success for the aircraft and engine R&D.

In the case of the ATC work, both systems and hardware technologies are also being developed in other countries; in application, however, the requirements of the Canadian ATC system are unique. The contractor, CGS, has worked with Transport Canada for some years in the development of equipment etc., and is thoroughly familiar with Canadian airspace and traffic patterns. By virtue of this combination of established technology and thorough understanding of operational needs, the probability of a successful outcome of the ATC R&D is also very high.

(g) Implications

The aircraft and engine R&D results should result in a strong Canadian aerospace industry based largely on civil aircraft and engine demand. Such an industry is less vulnerable to the sudden changes sometimes experieced when the industry depends largely on military orders or off-shore sub-contracts. Although fuel efficiency, (or energy conservation) is the prime objective, the benefits of increased and steady employment in the primary high technology industries and their widespread supporting industries will be realized, as well as improved international balance-of-trade.

The chief benefit from the ATC work will be a significant improvement in air traffic operations. The eventual relocation of some navaids is another likely result, as is the introduction of some new airborne and ground equipment with the attendant industrial benefits.

(h) Management

Individual contracts for the duration of approximately one year, or the achievement of a major milestone, will be negotiated with each contractor through DSS.

Monthly payments will be made upon receipt of a progress claim and progress report. Technical Reports and Summary Reports will be required at intervals of approximately one year.

TDC will provide overall program management on behalf of Transport Canada, and will act as Scientific Authority for the aircraft and engine projects; ATS will acts as Scientific Authority for the ATC projects, and DSS as Science Procurement Manager for all projects.

Review Teams will be established to monitor progress and prepare for subsequent R&D work or resulting product development; technical personnel from NRC, IT&C, DSS and Transport Canada will be members of these teams.

Transport Canada / Transports Canada

PROJECT COST SUMMARY SHEET / SOMMAIRE DES COÛTS DU PROJET

PROJECT NO. - PROJET Nº: -

AMENDMENT NO. - MODIFICATION Nº: -

FACILITY - INSTALLATION | FUNCTION - FONCTION | NATIONAL PROGRAM - PROGRAMME NATIONAL | BULK PROCUREMENT - ACQUISITION EN BLOC | CLASSIFICATION

	BASE YEAR ANNÉE DE BASE		FY - AF 1982-1983	%	FY - AF 1983-1984	%	FY - AF 1984-1985	%	FY - AF 19 -19	%	FY - AF 19 -19	%	SUBSEQUENT YEAR(S) ANNÉE(S) SUBSEQUENTES	%	% = INFLATION FACTOR FACTEUR D'INFLATION TOTAL
CAPITAL - IMMOBILISATIONS	EQUIPMENT MATERIEL	LA DA	-		-		-								
		R	-		-		-								
	CONSTRUCTION	LA DA	-		-		-								
		R	-		-		-								
	R & D OR/OU LAND ACQUISITION ACHAT DE TERRAIN	LA DA	-		-		-								
		R	-		-		-								
NON RECURRING P. O. & M. NON PÉRIODIQUES P. E. & E.	COSTS COÛTS	LA DA	-		-		-								
		R	-		-		-								
	PERSON - YRS ANNÉES - PERS.	LA DA	-		-		-								
		R	-		-		-								
	TOTAL CAPITAL TOTAL IMMOBILISATIONS	LA DA	-		-		-								
		R	-		-		-								*
G & C S & C	GRANTS AND CONTRIBUTIONS SUBVENTIONS ET CONTRIBUTIONS	LA DA	-		-		-								
		R	-		-		-								*
RECURRING P. O. & M.† PÉRIODIQUES P. E. & E.	COSTS COÛTS	LA DA	-		-		-								
		R	750		750		750								2,250 *
	PERSON - YRS ANNÉES - PERS.	LA DA	-		-		-								
		R	-		-		-								*

† USING THE FIRST YEAR REPORTED AS THE FIRST YEAR INDICATE THE CHANGES AS INCREASES OR DECREASES FOR EACH SUBSEQUENT YEAR.

EN UTILISANT LA PREMIÈRE ANNÉE COMME ANNÉE DE BASE INDIQUEZ LES CHANGEMENTS COMME UNE AUGMENTATION OU UNE DIMINUTION

* CARRY FORWARD TO PAGE 1. REPORTEZ À LA PAGE 1.

Transport Canada / Transports Canada

PROJECT COST SUMMARY SHEET / SOMMAIRE DES COÛTS DU PROJET

PROJECT NO - PROJET NO

AMENDMENT NO - MODIFICATION NO

PAGE 4B

FACILITY - INSTALLATION | FUNCTION - FONCTION | NATIONAL PROGRAM - PROGRAMME NATIONAL | BULK PROCUREMENT - ACQUISITION EN BLOC | CLASSIFICATION

	BASE YEAR ANNÉE DE BASE		FY - AF 19 82 - 19 83	%	FY - AF 19 83 - 19 84	%	FY - AF 19 84 - 19 85	%	FY - AF 19 - 19	%	FY - AF 19 - 19	%	SUBSEQUENT YEAR(S) ANNÉE(S) SUBSÉQUENTES	%	% = INFLATION FACTOR FACTEUR D'INFLATION TOTAL
CAPITAL - IMMOBILISATIONS	EQUIPMENT MATÉRIEL	LA DA	-		-		-								
		R	-		-		-								
	CONSTRUCTION	LA DA	-		-		-								
		R	-		-		-								
	R & D OR/OU LAND ACQUISITION ACHAT DE TERRAIN	LA DA	-		-		-								
		R	-		-		-								
NON RECURRING P O & M NON PÉRIODIQUES P E & E	COSTS COÛTS	LA DA	-		-		-								
		R	-		-		-								
	PERSON - YRS ANNÉES - PERS.	LA DA	-		-		-								
		R	-		-		-								
	TOTAL CAPITAL TOTAL IMMOBILISATIONS	LA DA	-		-		-								
		R	-		-		-								
G & C S & C	GRANTS AND CONTRIBUTIONS SUBVENTIONS ET CONTRIBUTIONS	LA DA	-		-		-								
		R	-		-		-								
RECURRING P O & M PÉRIODIQUES P E & E	COSTS COÛTS	LA DA	-		-		-								
		R	825	10	908	10	998	10							2,731
	PERSON - YRS ANNÉES - PERS.	LA DA	-		-		-								
		R	-		-		-								

* USING THE FIRST YEAR REPORTED AS THE FIRST YEAR INDICATE THE CHANGES AS INCREASES OR DECREASES FOR EACH SUBSEQUENT YEAR.

EN UTILISANT LA PREMIÈRE ANNÉE COMME ANNÉE DE BASE INDIQUEZ LES CHANGEMENTS COMME UNE AUGMENTATION OU UNE DIMINUTION

* CARRY FORWARD TO PAGE 1. REPORTER À PAGE 1.

Transpc. Canada / Transports Canada

SUB PROJECTS COST SUMMARY SHEET / SOMMAIRE DES COÛTS DE SOUS-PROJETS

PROJECT NO. - PROJET Nº

AMENDMENT NO. - MODIFICATION Nº

DESCRIPTION

NO. - Nº	TITLE/DESCRIPTION - TITRE ET DESCRIPTION	RESP.	ACTIVITY - ACTIVITÉ	SUB-ACTIVITY - SOUS-ACTIVITÉ
1	Transport Aircraft Fuel Efficiency			
2	STOL Aircraft Fuel Efficiency			
3	Gas Generator Turbine Efficiency			
4	ATC System Fuel Efficiency			

RESOURCES ALLOCATION - RÉPARTITION DES RESSOURCES

NO. - Nº	BASE YEAR ANNÉE DE BASE	FY - AF 19 82 - 19 83	%	FY - AF 19 83 - 19 84	%	FY - AF 19 84 - 19 85	%	FY - AF 19 - 19	%	FY - AF 19 - 19	%	SUBSEQUENT YEAR(S) ANNÉE(S) SUBSEQUENTES	%	% = INFLATION FACTOR FACTEUR D'INFLATION TOTAL
1	PY - AP	-		-		-								
	CAP - IMM	-		-		-								
	PO & M - PEE	220	10	242	10	266	10							728
2	PY - AP	-		-		-								
	CAP - IMM	-		-		-								
	PO & M - PEE	220	10	242	10	266	10							728
3	PY - AP	-		-		-								
	CAP - IMM	-		-		-								
	PO & M - PEE	220	10	242	10	266	10							728
4	PY - AP	-		-		-								
	CAP - IMM	-		-		-								
	PO & M - PEE	165	10	182	10	200	10							547
	PY - AP													
	CAP - IMM													
	PO & M - PEE													
	PY - AP													
	CAP - IMM													
	PO & M - PEE													

PROJECT NO. - PROJET No

AMENDMENT NO. - MODIFICATION No

REVENUE COMPUTATION DATA

DONNÉES SUR LES RECETTES

REVENUE DATA SHOULD PROVIDE SUFFICIENT INFORMATION TO PERMIT ANALYSIS OF THE PROJECTED ESTIMATES[1]. GIVE BREAKOUT OF REVENUES UNDER THE FOLLOWING HEADINGS: DIRECT, INDIRECT, TYPE (SOURCE), INFLATION AND AGREEMENTS.

LES DONNÉES RELATIVES AUX RECETTES DEVRAIENT COMPORTER SUFFISAMMENT DE RENSEIGNEMENTS POUR PERMETTRE L'ANALYSE DES ESTIMATIONS[1]. INDIQUEZ LA RÉPARTITION DES RECETTES GRÂCE AUX RUBRIQUES SUIVANTES: DIRECTES, INDIRECTES, TYPE (SOURCE), INFLATION ET ENTENTES.

NOT APPLICABLE - This is a research and development program from which no direct revenues will result.

1 WHERE NO REVENUES ARE REALISED AS A RESULT OF THE PROJECT, PROVIDE A BRIEF STATEMENT EXPLAINING WHY.

1 OU IL N'Y A PAS DE RECETTES PRÉVUES, À LA SUITE DE LA MISE EN OEUVRE DU PROJET, FOURNISSEZ UNE EXPLICATION.

Transport Canada Transports Canada

PAG

PROJECT NO. - PROJET No

AMENDMENT NO. - MODIFICATION No

COST COMPUTATION DATA — DONNÉES SUR LES COÛTS

COST DATA SHOULD PROVIDE SUFFICIENT INFORMATION TO PERMIT ANALYSIS OF THE PROJECTED ESTIMATES. ATTACH SUPPORTING DATA WHERE APPROPRIATE. GIVE BREAKOUT OF CAPITAL, ONE TIME AND RECURRING P.O. & M. COSTS UNDER THE FOLLOWING HEADINGS: DIRECT COSTS, RELATED COSTS, DESIGN CHANGE ALLOWANCE, CONTINGENCY ALLOWANCE, OPERATING COSTS, SHARED FUNDING.
(Number additional pages 7(a), 7(b), etc.)

LES DONNÉES RELATIVES AUX COÛTS DEVRAIENT COMPORTER SU SAMMENT DE RENSEIGNEMENTS POUR PERMETTRE L'ANALYSE D ESTIMATIONS. JOINDRE AU BESOIN DES PIÈCES À L'APPUI. INDIQU LA RÉPARTITION DES COÛTS D'IMMOBILISATION ET DES COU P.E. & E. OCCASIONNELS OU PÉRIODIQUES GRÂCE AUX RUBRIQU SUIVANTES: COÛTS DIRECTS, COÛTS CONNEXES, PRÉVISIONS EN CAS DE CHANGEMENTS DANS LA CONCEPTION, PRÉVISION D'URGENCE, COÛTS D'EXPLOITATION, FINANCEMENT PARTAGÉ.
(Numeroter les pages supplémentaires 7(a), 7(b), etc.)

(a) Direct Costs

Detailed cost breakdowns from the individual contractors have not been requested, but the general nature of the work and the level-of-effort as estimated below is based upon recent projects of a similar kind by the same contractors. By T.B. Administrative Policy Manual definition these are Class B estimates.

In all cases the work will consist of technical analyses supported by experimental tests or simulation. Rates charged will be in accordance with annual negotiations between each contractor and DSS.

In the case of experimental work existing models and equipment from previous work will be adapted for test purposes. It is anticipated that the facilities of Transport Canada will be used for ATC simulation work.

(b) Related Costs - nil

(c) Design Change Allowance - nil

(d) Contingency Allowance - nil

(e) Operating Costs - nil

(f) Revenues - nil

(g) Shared Funding

The willingness of the aircraft and engine contractors to continue to engage in shared cost projects is confirmed by correspondence in Appendices A, B and C.

(i) Contractor's share - 50% of total cost; this is estimated to be $600,000 per year.

(ii) Energy R&D funds - estimated to be $100,000 per year for each of the four projects, for a total of $400,000.

(iii) TDC funds - estimated to be a total of $350,000 per year.

(iv) Other Transport Canada support - the provision of ATC simulation facilities and personnel at no charge is anticipated. The cost of this support cannot be determined at this time.

Transport Canada · Transports Canada

MANAGEMENT DATA DONNÉES DE GESTION

PROJECT NO. - PROJET N°	AMENDMENT NO. - MODIFICATION N°
N/A	N/A

SPONSORING ORGANIZATION ORGANISME PARRAINANT	CONTACT OFFICER AGENT DE LIAISON	PROJECT MANAGEMENT RESPONSIBILITY RESPONSABILITE DE LA GESTION DU PROJET	PROJECT MANAGER DIRECTEUR DU PROJET
Transportation Development Centre	W.H.D. Hanchet (514) 283-7815		W.H.D. Hanchet

* INCLUDE ADDITIONAL MILESTONES AS APPROPRIATE
INCLURE D'AUTRES ETAPES AU BESOIN

MILESTONE - ÉTAPES	PLANNED DATE DATE PRÉVUE	ACTUAL DATE DATE REELLE	* MILESTONE - ÉTAPES	PLANNED DATE DATE PRÉVUE	ACTUAL DATE DATE REELLE
APD APPROVAL APPROBATION DU APD					
PAD APPROVAL APPROBATION DU PAD	Dec. 81				
T.B. SUBMISSION APPROVAL APPROBATION DE LA PRÉSENTATION AU C.T.	Jan. 82				
CONTRACT LET CONTRAT	Feb. 82 (Note 1)				
PROJECT COMPLETION RÉALISATION DU PROJET	March 85 (Note 2)				

SPECIAL REMARKS - REMARQUES SPÉCIALES

NOTE 1 It is envisaged that annual contracts will be negotiated in Feb. 82, 83 and 84 with each contractor, for work to be performed during FY's 82/83, 83/84 and 84/85.

NOTE 2 A Summary Report will be produced at the end of each year by each contractor.

DATE

The Honorable the Treasury Board
L'honorable Conseil du Trésor

CANADA

T.B. Number – C.T. N°

TRANSPORT CANADA
Department – Ministère

TC OFFICIAL
File – Dossier

Date

SUBJECT:	A short one sentence title identifying the type of proposal.
PROPOSAL:	This must contain all the significant points for which Treasury Board's approval is requested, and must be so worded that when approved it will form a clear, unambiguous minute of the decision. It must not contain reasons for the request: these are to be set out under "Remarks". By doing this, the resulting minute can indicate approval without necessarily agreeing with the reasons stated in the submission.
COST OR AMOUNT:	This heading will be used when the proposed expenditure is not shown in the "Proposal". The actual cost to be incurred and the resulting total cost should be clearly stated. If the actual amount is not known, enter an estimated cost and identify it as such.
CHARGEABLE TO:	Where a cost is shown, this heading is generally required, unless the expense is incurred as a result of legislation. Include Vote affected.
SUMMARY	This heading is to be used when the "Remarks" run beyond Page 2. The heading "Summary" must appear on Page 1 of the submission and must summarize the details appearing under "Remarks".
REMARKS:	For submissions requiring more than one page, the first page (form 7340-21-798-9239, TB 300-1, should contain all necessary headings. However, if there is not space on Page 1, "Remarks" may be placed on Page 2 or on a subsequent page. The "Remarks" section should contain a complete and adequate explanation of the proposal, to assist Treasury Board in reaching a proper decision.

TB 300-1 7340-21-798-9239

Transport Canada / Transports Canada

MEMORANDUM TO MINISTER
NOTE DE SERVICE AU MINISTRE

MINISTER'S FILE NO. / *Nº DE DOSSIER DU MINISTRE*

SECURITY CLASSIFICATION / *CLASSIFICATION DE SECURITE*

FILE NUMBER / *Nº DE DOSSIER*

DATE

SUBJECT – *OBJET*

TREASURY BOARD SUBMISSION FOR EXTENSION OF THE AUGMENTED RAIL FREIGHT PROGRAM

The enclosed Treasury Board submission requests approval for a two year extension of the Augmented Rail Freight Program, originally approved by Treasury Board in 1981 for three years. The extension will provide for funding levels equivalent to the same in the current year, in constant dollars ($2 million per annum in 1983-84 constant dollars assuming a 5% discount rate).

An evaluation of the program, as required by Treasury Board, has been carried out under the supervision of the Program Evaluation Branch. The evaluation, a summary of which is an Annex to the Submission, supports extension of the program.

The current economic environment makes the objectives of this program (productivity, capacity, safety, increased industry commitment to R&D and increased competitiveness) even more relevant today than when the program was originally approved. This program provides additional funds as controlled allotment for augmenting rail freight transportation R&D by the Transportation Development Centre of Transport Canada.

Original signed by
Originale signée par
M. K. Hicks

SUBMITTED BY – *PRÉSENTÉ PAR*
M.K. Hicks, Assistant Deputy Minister
Strategic Planning

ORIGINATED BY – *AUTEUR*	DESIGNATION – *SYMBOLE*	TELEPHONE NO. – *TELEPHONE Nº*
W. McLaren	DPM	123-1072
CO-ORDINATED WITH – *COLLABORATEUR*		
S. Khubchandani	DDC	995-0141

03-0058
8-78

TP100

Transport Canada / Transports Canada

DEPUTY MINISTER
CIRCULAR/CIRCULAIRE
DU SOUS - MINISTRE

84-04701-092
File/Dossier: X1590-6

October 15, 1984

Chiefs and Above, Ottawa.
Regional and District Offices.

ESTABLISHMENT OF THE DEPARTMENTAL CHALLENGE FUNCTION IN TRANSPORT CANADA

1. BACKGROUND

The challenge function is performed at various levels within Regions, Administrations, Headquarters and at the Departmental level. In spite of the many levels of program submission challenges, a recent internal audit has confirmed the view of Senior Management and the Treasury Board Secretariat that a more effective review of program proposals is required.

2. PURPOSE

The purpose of this circular is to announce the creation of a Program Control Board (PCB). This board will review all proposals with resource implications prior to their submission to the Minister, Treasury Board or Cabinet. The Program Control Board will be supported by a PCB Secretariat headed by an Executive Director who will be the departmental functional specialist for the challenge function in Transport Canada.

le 15 octobre 1984

Chefs et cadres supérieurs, Ottawa.
Bureaux régionaux et de district.

LA CRÉATION D'UNE FONCTION D'EXAMEN CENTRAL À TRANSPORTS CANADA

1. ANTÉCÉDENTS

À Transports Canada, les examens se font à divers niveaux des régions, des administrations, de l'Administration centrale et du Ministère. Malgré tout, il ressort d'une récente vérification interne que la haute direction du Ministère et le Conseil du Trésor sont d'avis qu'il faudrait examiner de façon plus efficace les propositions de programmes.

2. BUT

Le but de la présente circulaire est d'annoncer la création d'un Conseil d'examen des programmes (CEP), lequel sera chargé d'étudier toutes les propositions exigeant l'affectation de ressources avant leur présentation au Ministre, au Conseil du Trésor ou au Cabinet. Le Conseil sera doté d'un secrétariat dirigé par un directeur exécutif qui sera le spécialiste ministériel de la fonction d'examen central à Transports Canada.

APPENDIX 3-A

.../2

3. PCB TERMS OF REFERENCE

The Program Control Board will review departmental proposals and submissions related to the allocation of resources such as the MYOP, Estimates, APD's, PAD's, Cabinet Documents, TB Submissions, Capital Investment Plans, Human Resource Plans, Master Plans, policy proposals; and will recommend approval or otherwise to the Deputy Minister. The PCB will consider all such proposals for which approval is not delegated to Administrations and Groups. As well the PCB will consider current year resourcing matters (e.g. PY utilization) with input from appropriate functional Groups.

3. MANDAT DU CEP

Le Conseil d'examen des programmes (CEP) étudiera les propositions et présentations ministérielles afférentes à l'affectation de ressources, telles que le POP, les budgets des dépenses, les APD, les PAD, les documents adressés au cabinet, les présentations au CT, les plans d'immobilisations, les plans des ressources humaines, les plans directeurs et les propositions de politiques, et en recommandera l'approbation ou non au Sous-ministre. Il étudiera toutes les propositions dont l'approbation n'est pas expressément confiée par délégation aux administrations et aux groupes. En outre, avec les intrants des groupes fonctionnels appropriés, le CEP étudiera les sujets de l'année en cours concernant les ressources (par exemple l'utilisation des années-personnes).

4. MEMBERSHIP

The PCB will be chaired by the Associate Deputy Minister and will comprise Deputy Administrators and Group Heads. The Board will meet regularly to consider routine proposals. Special meetings of the Board may be called by the Chair to consider high priority proposals or major submissions to the Treasury Board or Cabinet.

4. COMPOSITION

Le CEP sera présidé par le Sous-ministre adjoint et regroupera les administrateurs adjoints ainsi que les chefs de groupe. Le Conseil se réunira régulièrement afin d'étudier les propositions courantes. Des réunions spéciales pourront être convoquées par le président afin d'examiner des propositions prioritaires ou des présentations importantes destinées au Conseil du Trésor ou au Cabinet.

5. PROCESS

Each proposal to be considered by the Board will be analyzed by the PCB Secretariat with mandatory functional review by ADMF and reviews by ADMP, ADMPC or others as required. PCB Secretariat staff will normally brief Board members on each proposal and provide a recommendation to the Board based

5. TRAITEMENT

Chaque proposition étudiée par le Conseil sera analysée par le secrétariat de ce dernier et obligatoirement examinée par l'ADMF. Par la suite, cet examen s'étendra à l'ADMP, l'ADMPC et d'autres personnes, au besoin. Le personnel du secrétariat du CEP présentera habituellement un exposé de chaque proposition aux membres du Conseil ainsi

on its analysis. Although all proposal sponsors are represented on the PCB by their Group head or Deputy Administrator, sponsoring officials may be invited to attend PCB meetings to provide additional information.

qu'une recommandation fondée sur l'analyse effectuée. Bien que tous les parrains de proposition soient représentés au sein du CEP par leur chef de groupe ou leur administrateur adjoint, des représentants pourront être invités à assister aux réunions du CEP afin de fournir des renseignements supplémentaires sur une proposition.

6. POLICY

All Group Heads within Transport Canada will submit resource proposals which require ministerial, Treasury Board or Cabinet approval to the PCB Secretariat for analysis and recommendation purposes. The PCB Secretariat will also be provided current information with respect to submissions for which approval is delegated to Groups and Administrations.

6. POLITIQUE

Tous les chefs de groupe de Transports Canada présenteront au secrétariat du CEP, à des fins d'analyse et de recommandation, les propositions touchant l'utilisation des ressources et exigeant l'approbation du Ministère, du Conseil du Trésor ou du Cabinet. Le secrétariat présentera également des renseignements à jour quant aux présentations dont l'approbation est déléguée aux groupes et aux administrations.

7. RESPONSIBILITIES

The PCB will be responsible for the following:

1. reviews and recommends to the DM all plans, policies and program proposals with resource implications;

2. reviews and recommends to the DM the Strategic Overview, Strategic Planning Guidelines, MYOP and other documents with resource implications;

3. considers all proposals involving adjustments to the person-year base;

7. RESPONSABILITÉS

Le CEP sera chargé:

1. d'étudier toutes les propositions de plans, de politiques et de programmes ayant d'importantes répercussions sur les ressources et de présenter des recommandations au SM à cet égard;

2. d'étudier le Sommaire des stratégies, les Lignes directrices sur la planification stratégique, le POP et les autres documents ayant d'importantes répercussions sur les ressources et de présenter des recommandations au SM à cet égard;

3. d'examiner toutes les propositions exigeant des modifications au niveau des années-personnes;

4. reviews the current status of the capital, O&M and PY budgets of the various programs based upon analysis and information provided by ADMF;

4. d'étudier la situation des budgets d'immobilisations, d'exploitation et d'entretien et d'années-personnes des divers programmes en fonction de l'analyse et des renseignements fournis par l'ADMF;

5. assumes the tasks and responsibilities currently performed by the Senior Budget Review Committee and the Programming Committee.

5. d'exécuter les tâches et de s'acquitter des responsabilités habituellement confiées au Comité principal d'examen des budgets et au Comité de l'établissement des programmes.

The PCB Secretariat will be responsible for the following:

Le secrétariat du CEP sera chargé:

1. develops and implements policies, standards, procedures and systems with respect to the departmental challenge of all resource and policy related proposals;

1. d'élaborer et de mettre en oeuvre des lignes directrices, des normes, des méthodes et des systèmes relativement à l'examen central par le Ministère de toutes les propositions touchant l'utilisation des ressources et la politique;

2. conducts objective and independent analysis of Transport Canada resource proposals;

2. d'effectuer une analyse objective et indépendante des propositions touchant l'utilisation des ressources de Transports Canada;

3. ensures that Headquarters Groups provide functional comments;

3. de veiller à ce que les groupes de l'Administration centrale présentent des commentaires d'ordre fonctionnel;

4. recommends approval or otherwise to the PCB in a précis format;

4. de recommander l'approbation ou autres mesures au CEP par le biais d'un exposé;

5. monitors the challenge function as delegated to each of the Groups and Administrations;

5. de surveiller la fonction d'examen central délégué à chaque groupe et administration;

6. act as the departmental focal point with Central Agencies regarding the justification and quality of program proposals. This does not preclude

6. d'être le point principal de contact entre le Ministère et les organismes centraux relativement à la justification et à la qualité des propositions de programme.

sponsoring Groups from dealing directly with TBS on matters relating to proposal operational and technical explanations. Similarly, Headquarters functional Groups deal directly with Central Agencies on matters concerning functional policy, procedures and practices. The PCB Secretariat is jointly involved with Groups sponsoring proposals in discussions with TBS concerning proposal negotiations and trade offs.

Cela n'empêche toutefois pas les groupes présentant des propositions de traiter directement avec le Secrétariat du Conseil du Trésor afin d'obtenir des explications d'ordre technique ou opérationnel. De même, les groupes fonctionnels de l'Administration centrale pourront traiter directement avec les organismes centraux sur les questions touchant la politique, les procédures et les pratiques d'ordre fonctionnel. Le secrétariat du CEP, de concert avec les groupes présentant des propositions, participe aux négociations et aux échanges sur les propositions qui ont lieu avec le Secrétariat du Conseil du Trésor.

7. ORGANIZATION

The Executive Director of the Secretariat reports to and receives functional direction from DGR. The Executive Director of the PCB Secretariat may from time to time receive direction from DMX in his capacity as chairman of the PCB.

7. ORGANISATION

Le directeur exécutif du secrétariat relèvera du DGR qui sera le chef fonctionnel. Le directeur exécutif du secrétariat du Conseil d'examen des programmes devra de temps à autres recevoir des directives du DMX dans sa capacité de président du CEP.

8. TIMING

The responsibilities of the PCB and the PCB Secretariat will become effective November 1, 1984.

8. ENTRÉE EN VIGUEUR

Le CEP et le secrétariat de ce dernier commenceront à s'acquitter de leurs responsabilités à compter du 1er novembre 1984.

9. ENQUIRIES

Enquiries regarding this circular should be directed to the Director General, Review (DGR) in Ottawa, telephone 993-4465.

9. DEMANDES DE RENSEIGNEMENTS

Les questions concernant la présente circulaire devraient être adressées au Directeur Général Revue (DGR/X) à Ottawa, au 993-4465.

Le Sous-ministre,

R.M. Withers,
Deputy Minister

TP 100

Transport Canada / Transports Canada

DEPUTY MINISTER
CIRCULAR/CIRCULAIRE
DU SOUS - MINISTRE

86-09100-070
File/Dossier: X1575-9(S)

April 11, 1986

Directors and above, Ottawa.
Regional and District Offices.

PROGRAM CONTROL BOARD (PCB) RESOURCE PROPOSAL PROCEDURE

I. Objective

The objective of this procedure is to:

a) facilitate the review of resource proposals by the PCB;

b) permit decision making that results in the most effective use of limited resources;

c) effect resource trade-offs between program components thus ensuring that allocation is to areas of highest priority; and

d) promulgate all delegations of authorities (see Annex A).

le 11 avril 1986

Directeurs et cadres supérieurs, Ottawa.
Bureaux régionaux et de district.

PROCÉDURE ÉTABLIE PAR LE CONSEIL D'EXAMEN DES PROGRAMMES POUR LA REVUE DES PROPOSITIONS ENTRAÎNANT LA DÉPENSE DE RESSOURCES

I. Objectif

L'objectif de la présente procédure est de:

a) faciliter l'examen par le CEP des propositions entraînant la dépense de ressources;

b) permettre une prise de décisions qui se traduit dans l'utilisation la plus efficace des ressources limitées;

c) permettre l'échange des ressources entre les diverses composantes de programme pour assurer leur allocation aux secteurs de plus haute priorité; et

d) promulguer les délégations de pouvoirs (voir annexe A).

It's our year! In motion...in touch
C'est notre année! En mouvement...au courant

II. Scope

The scope of this document applies to all resource proposals including those related to Economic Regional Development Agreements (ERDAs).

III. Definitions

a) Resources are the dollars and person-years available to the Department as authorized by the Treasury Board through Estimates and MYOP Reference Levels for future years.

b) A Reallocation is a management decision to utilize resources ($ & PYs), which were previously approved by PCB for a specific purpose, to some other purpose which is deemed to be of higher priority. A reallocation may be for one year only or may extend across the planning period.

c) A Reprofiling or Carry Forward is a deliberate management action causing appropriated funds to lapse in the current fiscal year so that they may be utilized in the next or subsequent fiscal years for the same designated project/program. It involves no net change in funding over the period affected.

d) A Funded Requirement is one for which all necessary approvals have been obtained and to which funds have been allocated.

II. Portée

Le présent document vise toutes les propositions entraînant la dépense de ressources, y compris celles qui sont reliées aux EDER.

III. Définitions

a) Ressources: dollars et années-personnes mis à la disposition du Ministère et autorisés par le Conseil du Trésor par le truchement du Budget principal des dépenses et des niveaux de référence POP pour les années futures.

b) Réaffectation: décision de la direction d'utiliser les ressources ($ et A.-P.) déjà approuvées par le CEP à une fin spécifique à une autre fin jugée être plus prioritaire. Une réaffectation peut viser un seul exercice ou peut être reportée sur toute la période de planification.

c) Report de fonds: une mesure délibérée de la part de la direction entraînant l'annulation de fonds alloués au cours de l'exercice financier actuel de sorte qu'ils puissent être utilisés au cours du prochain exercice ou des exercices subséquents pour le même projet/programme. Cela n'entraîne aucun changement net de financement sur la période visée.

d) Besoin financé: besoin pour lequel toutes les approbations nécessaires ont été obtenues et les fonds alloués.

e) An Unfunded Requirement is a project, activity or workload increase for which the departmental authority/mandate exists; for which no resource allocation has been approved; and for which Group Heads are unable to identify a funding offset for reallocation.

f) A New Initiative is a proposal for which no approved resource allocation exists and for which Treasury Board or Cabinet authority must be sought.

g) A Reserve List is a list of items within an existing plan for which all necessary program approvals have been obtained but for which funds are not allocated.

h) A Program is a group of related departmental activities designed to achieve specific objectives approved by Parliament. There is one Transport Program.

i) A Planning Element is a major program component, as identified in an Operational Plan Framework, for which specific results, objectives and accountabilities have been defined. It is the level at which resource allocations are made by the Treasury Board. Its purpose is to achieve specific sub-objectives of the program. It is displayed separately in the Estimates. A Planning Element may include one or more sub-planning elements.

e) Besoin non financé: il peut s'agir d'un projet, d'une activité ou d'une augmentation de la charge de travail que le Ministère a pour mandat d'exécuter, pour lequel aucune allocation de ressources n'a été approuvée et que les gestionnaires sont incapables de financer par le truchement d'un échange de fonds.

f) Nouvelle initiative: une proposition pour laquelle il n'existe aucune ressource approuvée et au sujet de laquelle il faut demander l'autorisation du Conseil du Trésor ou du Cabinet.

g) Liste de réserve: une liste d'activités au sein d'un plan actuel à l'égard desquelles toutes les approbations de programme nécessaires ont été obtenues, mais pour lesquelles aucun fonds n'a été alloué.

h) Programme: groupe d'activités connexes du Ministère axées sur des objectifs particuliers approuvés par le Parlement. Il y a un seul Programme des transports.

i) Élément de planification: composante majeure d'un programme déterminé dans le Cadre du plan opérationnel, ayant des résultats et des objectifs bien définis et à l'égard de laquelle les responsables ont été désignés. C'est le niveau auquel le Conseil du Trésor affecte les ressources; il a pour objet la réalisation des sous-objectifs particuliers du programme. Il fait l'objet d'un poste distinct au Budget principal des dépenses. Un élément de planification peut renfermer un ou plusieurs éléments de sous-planification.

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j) Program Fidelity is the relationship between planned expenditures/results and actual expenditures/results during the course of a given year. It is measured in terms of the accomplishment of specific activities, projects and initiatives as detailed in the annual operational plan. Group Heads are accountable for the fidelity of their respective programs.

IV. Procedure

1. The PCB will approve annually Operational Plans for the Program. These Operational Plans will identify the objectives, results anticipated and resource requirements for each planning element, including a list of ongoing and planned capital projects. Planned projects for which funds are not allocated will be assigned to a reserve list. Within the context of these approved plans, the following expenditure reallocations, within any fiscal year, are subject to PCB approval.

a) reallocations between Planning Elements;

b) reallocations within a Planning Element which require a vote transfer;

c) reallocations within a Planning Element which do not require a vote transfer and that do not fit in one of the categories at (2) below;

j) Fidélité au programme: correspondance entre les dépenses/ résultats planifiés et les dépenses/résultats réels sur une année donnée. Cette correspondance se mesure en fonction de la réalisation d'activités, de projets et d'initiatives particuliers que renferme le plan opérationnel annuel. Les Chefs de groupe doivent rendre compte de la fidélité de leurs programmes respectifs.

IV. Procédure

1. Le CEP approuvera annuellement les plans opérationnels du Programme. Ceux-ci établiront les objectifs, les résultats escomptés les besoins en ressources pour chaque élément de planification, y compris une liste des projets d'immobilisation en cours et prévus. Les projets planifiés pour lesquels les fonds n'ont pas été alloués seront portés sur une liste de réserve. Dans le contexte des plans approuvés, les réaffectations suivantes de dépenses, au cours d'un exercice financier, seront assujetties à l'approbation du CEP:

a) réaffectations entre les éléments de planification;

b) réaffectations au sein d'un élément de planification qui nécessite un transfert de crédit;

c) réaffectations au sein d'un élément de planification qui n'exige pas un transfert de crédit et qui ne répond pas à l'une ou l'autre des catégories du n° 2 ci-après;

d) reallocation of all Contribution funds in excess of $500K;

e) changes in the approved cash-flow of any funded project in any given year by an amount greater than the amount delegated for project approval;

f) all proposals involving reprofiling or carry forwards;

g) unfunded requirements in excess of $500K; and

h) new initiatives.

2. The following do not require PCB approval:

a) reallocations of capital funds amongst funded projects within PCB approved Operational Plans up to an amount equal to the authority delegated for the approval of projects;

b) funding of capital projects by reallocation, if they are included in a PCB approved reserve list, and if the TEC of each project is less than the amount delegated for project approval; and

c) within a Planning Element, O&M resources may be reallocated to other O&M applications, provided that neither the wage bill nor the

d) réaffectation de tous les fonds de contribution au-delà de 500 000 $;

e) les changements dans les mouvements de trésorerie approuvés de tout projet financé au cours d'un exercice donné d'une somme supérieure à la somme déléguée aux fins d'approbation du projet;

f) toutes les propositions entraînant le report de fonds;

g) les besoins non financés supérieurs à 500 k$; et

h) les nouvelles initiatives.

2. Les activités suivantes ne nécessiteront pas l'approbation du CEP:

a) les réaffectations de fonds d'immobilisation à d'autres projets financés figurant dans les plans opérationnels approuvés par le CEP, à concurrence d'une somme égale à l'autorisation déléguée pour l'approbation des projets;

b) le financement de projets d'immobilisation par réaffectation, s'ils figurent sur la liste de réserve approuvée par le CEP et si le CET de chaque projet est inférieur à la somme déléguée pour l'approbation de projet; et

c) à l'intérieur d'un élément de planification, les ressources F et E peuvent être réaffectées à d'autres applications F et E pourvu que cela n'entraîne pas

size of the public service are increased.

3. All proposals subject to these procedures shall be submitted through the DPB/X Submission Control Unit to the PCB Secretariat (XCB/X), in memorandum format, with relevant supporting material (APD, PAD, etc.) attached. Proposals must be stated clearly and concisely; provide sufficient justification to convey need and priority; identify any related program issues; and explain why any funds available for reallocation are no longer required for their originally intended purpose.

4. The PCB Secretariat will review the proposal and schedule consideration, if warranted, at the next available meeting of the PCB. ADMF staff, and others as required, will be consulted in the review process.

5. The PCB will assess the affordability of the proposal in the context of the ADMF financial status report.

6. The PCB meeting record (minutes and/or decision letters) shall constitute formal approval or disapproval of proposals receiving full PCB consideration. DMX sign-off shall constitute formal approval of proposals processed secretarially.

la majoration de la facture des traitements ni la multiplication des fonctionnaires.

3. Toutes les propositions visées par ces procédures seront soumises par l'Unité de contrôle des soumissions du DPB/X au Secrétariat CEP (XCB/X), sous forme de mémoire, accompagné des documents à l'appui (APD, PAD, etc.). Les propositions doivent être décrites de façon claire et concise, faire l'objet d'une justification suffisante du besoin et de la priorité, faire état de toute question qui s'y rattache dans le cadre du programme et renfermer une explication de la raison pour laquelle les fonds pouvant être réaffectés ne sont plus requis là où ils avaient d'abord été affectés.

4. Le Secrétariat du CEP examinera la proposition et le calendrier qui l'accompagne, s'il y a lieu, à sa prochaine réunion dont l'ordre du jour le permettra. Le personnel de l'ADMF, et d'autres au besoin, seront consultés au cours du processus de l'examen.

5. Dans le contexte du rapport de l'ADMF sur la situation financière, le CEP jugera si le Ministère a les moyens de donner suite à la proposition.

6. Le procès-verbal de la réunion du CEP constituera l'approbation ou désapprobation officielle des propositions que le CEP aura dûment étudiées. Le signature du DMX constituera l'approbation officielle des propositions qui auront été examinées par le Secrétariat.

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7. ADMF will monitor Program Fidelity. ADMF will ensure that adequate systems and procedures are in place to perform this function.

8. The PCB will decide whether a Treasury Board submission or Memorandum to Cabinet is required and advise the sponsor accordingly.

9. ADMF will adjust the TC Financial Status Report for items approved by PCB, maintain an appropriate accounting mechanism and subsequently prepare any required Treasury Board submissions seeking Supplementary Estimates, Vote Transfers or allotment changes.

V. Enquiries

Enquiries on the above should be directed to XCB/X in Ottawa at (613) ~~995-0188~~ 998-6523

7. L'ADMF contrôlera la fidélité au programme. L'ADMF assurera que les systèmes et procédures adéquats sont existants pour faire cette fonction.

8. Le CEP décidera s'il y a lieu de rédiger une présentation au Conseil du Trésor ou un Mémoire au cabinet et en avisera les auteurs de la proposition.

9. L'ADMF révisera le rapport sur la situation financière de TC pour y intégrer les propositions approuvées par le CEP, il mettra en place un mécanisme comptable approprié et, par la suite, préparera les présentations nécessaires au Conseil du Trésor pour demander des budgets supplémentaires, des transferts de crédit ou des changements d'affectation.

V. Demande de Renseignements

Toute demande de renseignements sur ce qui précède devrait être adressée au XCB à Ottawa, téléphone (613) ~~995-0188~~ 998-6523.

Le Sous-ministre,

R.M. Withers
Deputy Minister

Annex A

Approval Authority to Grant Preliminary, Effective and Cost Overrun Capital Project Approval

DMX approval is required:	APDs over $5M where the requirement for an APD is not waived.
MIN approval is required:	HPD projects from $1M to $7M Fleet projects from $3M to $10M Aviation projects from $3M to $10M Airports projects from $3M to $10M
TB approval is required:	Departmental Admin. projects over $1M Surface projects over $1M Marine CCG non-fleet projects over $1M Marine CCG fleet projects over $10M Marine HPD projects over $7M Aviation projects over $10M Airports projects over $10M

Group Heads may approve all projects in their area of responsibility where approval is not required by DMX, MIN or TB, as above.

CHAPTER 4

CONTRACTOR SELECTION AND CONTRACT AWARD PHASE

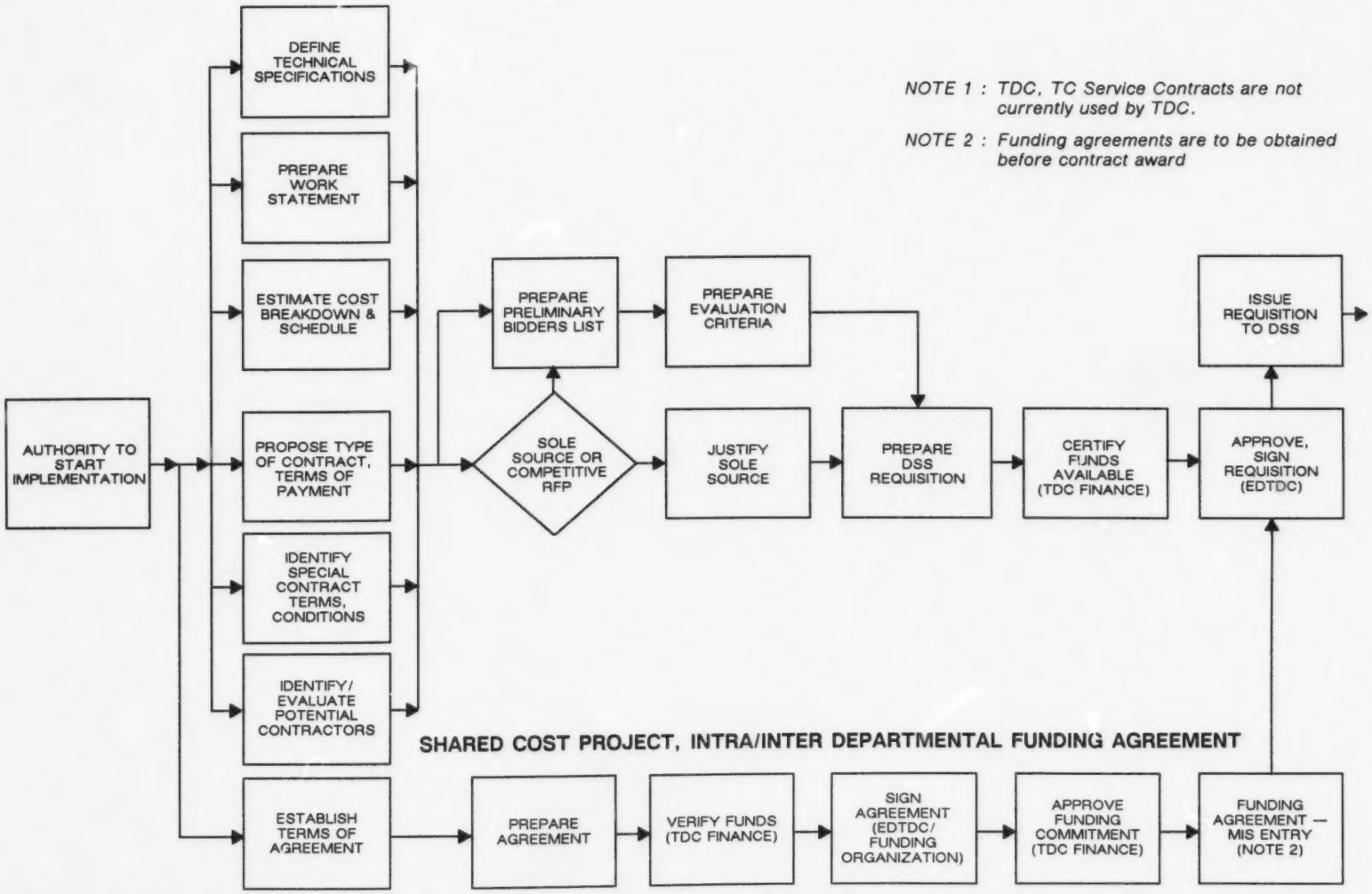

Figure 4a Contractor Selection and Contract Award Phase: Preliminary

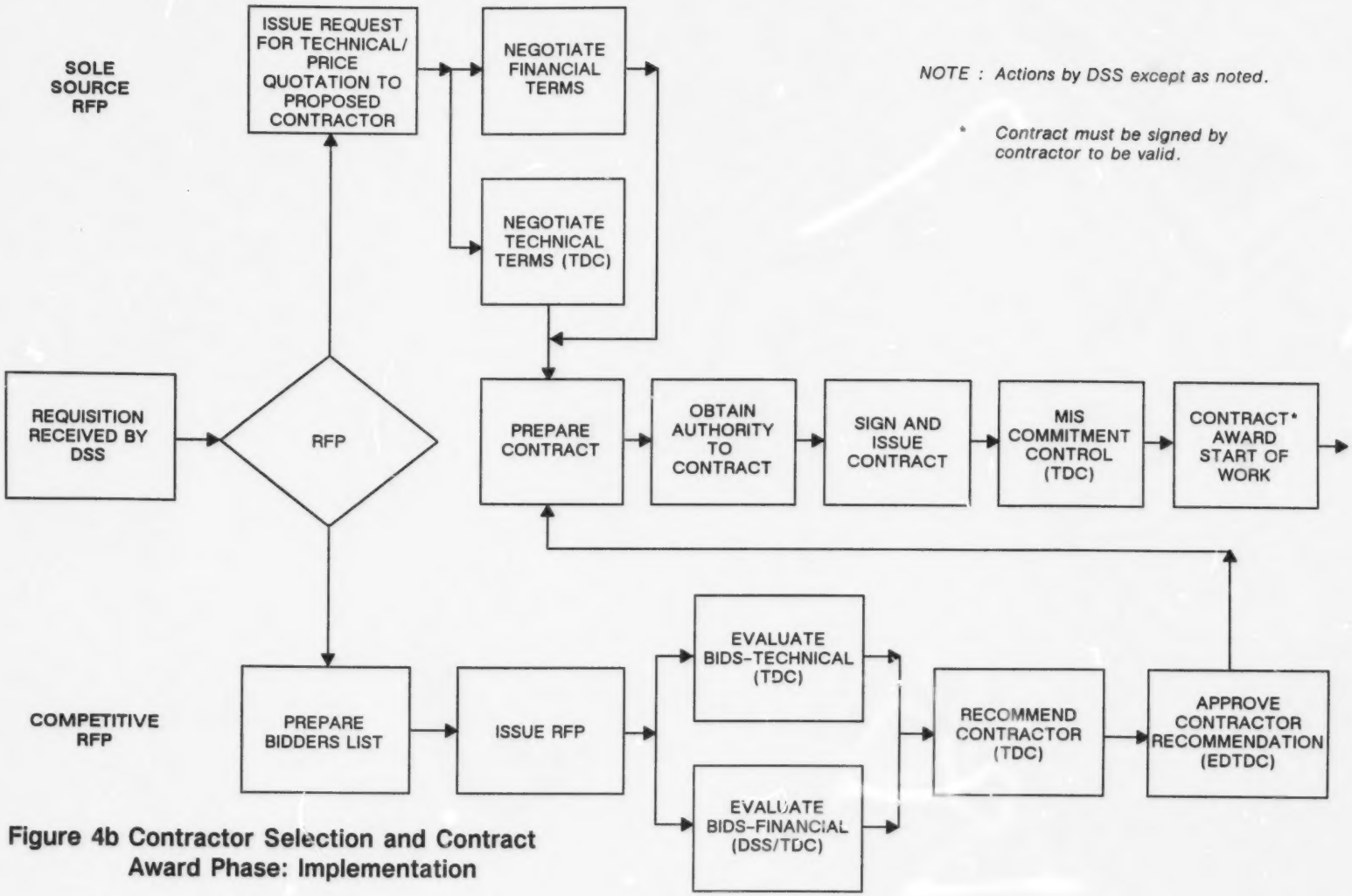

Figure 4b Contractor Selection and Contract Award Phase: Implementation

SCOPE

(see Figures 4a and 4b)

This chapter describes the processes following AIP authorization by the appropriate level of authority, through to the awarding of a contract by SSC. It includes:

- preparation of an SSC RFP,
- evaluation of contractor proposals,
- preparation of SSC requisition to award a contract.

POLICY

Through its contracting-out policy, SSC acts as the contracting component for TDC research and development contracts. Under this policy TDC acts as the Scientific Authority (SA) and is responsible for:

- establishment of the objectives of the science and technology requirement,
- scope of work, statement of requirements, specifications, etc.,
- encumbrance of funds,
- advice on potential sources,
- preparation of project descriptions and provision of advice and support for publicity,
- briefing of potential sources on objectives, scope of work, and all other such matters,
- in-house justification,
- evaluation of the scientific and technological portion of the proposals,
- management of the scientific and technological content during the life of the project,
- changes in the scope of work (if such changes affect contractual arrangements, the changes cannot be acted upon by the contractor without authorization by the Science Procurement Manager (SPM) and the contract amended accordingly),
- evaluation, inspection, quality assurance and acceptance of the product of the contract,
- payment for work done,
- support of the SPM.

Similarly, under the policy, SSC acts as the SPM and is responsible for:

- sourcing,
- establishing bidders' lists,
- publicity of contract opportunities,
- requesting proposals,
- evaluation of non-scientific and non-technical portions of the proposal,
- contract negotiations including prices, terms and conditions,
- preparation of the contract,
- ensuring that the proprietary rights of the Canadian government to the results of the science and technological work are contractually protected,
- obtaining the necessary contract authorizations,
- contract management,
- amending the contract (subject to the SA agreement when the changes affect the SA areas of responsibility),

— negotiation of contract termination or settlement, if this becomes necessary,
— supporting the SA.

BACKGROUND

TDC also negotiates Service Order Contracts, e.g. those raised by TDC Administration for supplies, inter- or intra-departmental agreements for funds used in R&D contracts, and other specialized contracts such as contribution agreements with other levels of governments and university-based organizations (see Appendix 4-8). Since the advent of the contracting-out policy the majority of TDC contracts, relating to R&D, are handled by SSC as a service to TDC. The TDC Service Contract, a vehicle used to procure R&D services amounting to less than $30,000, is not currently in use.

PROCEDURES

4.10 PREPARING AN SSC REQUISITION FOR A REQUEST FOR PROPOSAL (RFP)

Responsibility	Action
Project Officer	1. Develop the work statement for the project (see Annex A, Appendix 4-4).
	2. Develop a set of evaluation criteria for the proposals (see Appendix 4-1). Although responses are directed to the SPM, it is the joint responsibility of the SPM and the SA to evaluate the proposals.
	3. Identify potential contractors. This list may be added to by the SPM.
	4. Prepare an SSC requisition for an RFP (form SSC-ASC 9200, 1986). Attach the following appendices: — work statement, — evaluation criteria, — list of potential contractors, See Appendix 4-2 for guidelines for completing this requisition, its appendices and a sample.
	5. Complex RFPs may require a bidders' conference. Such conferences are to be jointly arranged by the SA and SPM at a mutually convenient time and location.

6. If inter- or intra-departmental funding is to be used, prepare Inter- or Intra-Departmental Funding Agreement (see Appendix 4-5).

7. Forward original returned funding agreement to TDC Finance.

NOTE: If, during preparation of the project justification, required funds are withdrawn, EDTDC must be informed, in order to reconsider the project. Notification to EDTDC should be in a memorandum explaining the situation and routed using an AIP routing slip so that all involved with the project are made aware of the situation. It should be noted that projects approved for implementation on the basis of funds from other groups may not proceed if this funding support is withdrawn.

8. Complete routing/action slip (see Appendix 4-3), attach documentation and send to Division Chief for review.

Division Chief

9. Review and comment as necessary. Forward to TDC Finance.

TDC Finance

10. Review and comment as necessary; certify availability of funds and fill in financial codes and requisition number.

11. Send to EDTDC.

EDTDC

12. Review and, if satisfactory, sign to indicate project implementation approval. Return to TDC Finance.

TDC Finance

13. Send requisition to SSC and update project information on the MIS.

14. Distribute copies of requisition.

4.20 EVALUATING CONTRACTOR PROPOSALS

Responsibility	Action
SPM (SSC)	1. Forward proposals to TDC.
Project Officer	2. Review the proposals in consultation with the SPM to evaluate them against the evaluation criteria.

NOTE: A team of three or more persons led by the Project Officer evaluates proposals. Other members of the team may include representatives of co-sponsoring departments or organizations or other TDC Project Officers.

3. Prepare a report, in consultation with the SPM, recommending selection of a specific bidder.

4. Forward report to EDTDC for review and approval (see Appendix 4-1).

EDTDC

5. Review, and advise Project Officer of approval or disapproval.

Project Officer

6. If EDTDC approves, advise SSC, in writing, to proceed. If EDTDC does not approve take action necessary to resolve the problem.

NOTE: Contractor evaluation reports are classified and treated as confidential.

4.30 PREPARING AN SSC REQUISITION FOR THE AWARD OF A CONTRACT

(including Request for Cost Quotation if necessary)

Responsibility **Action**

Project Officer

1. Prepare an SSC requisition for the Award of a Contract (form SSC-ASC 9200, 1986). Attach the following appendices:
   - work statement and a copy of contractor's technical proposal with any deviations noted,
   - estimated cost breakdown,
   - Unsolicited Proposal Funding Request including memorandum to the Director General, Research and Development (ACD) and Associate Assistant Deputy Minister, Policy and Coordination (ACM) (see Appendix 4-3b) (SSC UPs only).

   See Appendix 4-4 for guidelines and samples for completing this requisition, its appendices and the SSC Unsolicited Proposal Funding Request memorandum.

   NOTE: Particular attention should be given to section 9 of Appendix 4-4, and Appendix 4-6.

In addition to the appendices required for the requisition, include:

- inter-intra-departmental funding agreement (if necessary) (see Appendix 4-5),
- report on evaluation of responses to RFP (if applicable),
- a paragraph to substantiate the need for sole sourcing (see Appendix 4-7).

2. Complete and attach a copy of the MIS Project Entry Form (see Appendix 2-10) with reference to Appendix 2-12.

3. Complete routing/action slip (see Appendix 4-3a or 3b), attach documentation and send to Division Chief for review.

Division Chief

4. Review and comment as necessary, forward to TDC Finance.

TDC Finance

5. Review and comment as necessary; amend financial codes and requisition number as necessary.

6. Send to EDTDC.

EDTDC

7. Review and, if acceptable, sign to indicate approval. Return balance of folder to TDC Finance.

TDC Finance

8. Send requisition to SSC and enter or update project information on MIS, using the MIS Project Entry Form.

9. Distribute copies of requisition.

SSC

10. Negotiate contract with successful bidder. If requested, send copy of final contract to Project Officer for review before sending to contractor.

11. Send three copies of signed contract to TDC: two for TDC Finance and one for the Project Officer.

TDC Finance

12. Forward copy of signed contract to Project Officer.

13. Confirm MIS data from contract, print Data Entry Feedback Form and forward to Project Officer for verificaton.

Project Officer

14. See Chapter 5: Project Monitoring Phase.

4.40 PREPARING AN SSC REQUISITION FOR AN RFP AND AWARD OF CONTRACT

NOTE: This procedure is used when full and detailed information is available for the required work so that equally detailed responses can be expected from bidders. Once the bids are evaluated by TDC and SSC, and EDTDC has approved the contractor selection, SSC has the authority to proceed with the contract without further action on the part of the Project Officer. This is a time-saving procedure in projects of great urgency.

Responsibility	Action
Project Officer	1. Prepare an SSC requisition for a Request for Proposal and the award of a contract (form SSC 9200). Attach the following appendices: — work statement, — estimated cost breakdown. In addition to the appendices required for the requisition include: — evaluation criteria, — list of potential contractors, — a memorandum to EDTDC elaborating on the need for sole sourcing if required (see Appendix 4-7). See Appendix 4-4 for guidelines for completing this requisition and its appendices.
	2. Complete routing/action slip (see Appendix 4-3a or 3b), attach documentation and send to Division Chief for review.
Division Chief	3. Review and comment as necessary, forward to TDC Finance.
TDC Finance	4. Review and comment as necessary; amend financial codes and requisition number as necessary.
	5. Send to EDTDC.
EDTDC	6. Sign to indicate approval. Return balance of folder to TDC Finance.
TDC Finance	7. Send requisition to SSC and modify project information on MIS.
	8. Distribute copies of requisition. Return green copy to Project Officer.

SSC	9.	Forward proposals to TDC.
Project Officer	10.	Review the proposals in consultation with the SPM against the evaluation criteria. Recommend specific contractor.
Chief	11.	Forward recommendation to EDTDC for review and approval.
EDTDC	12.	Review, and advise Project Officer of approval or disapproval.
Project Officer	13.	If EDTDC approves advise SSC, in writing, to proceed. If EDTDC disapproves take action necessary to resolve the problem.
	14.	Complete the MIS Project Entry Form (see Appendix 2-10) with reference to Appendix 2-12, and forward to TDC Finance.
SSC	15.	Negotiate contract. If requested, send copy of final contract to Project Officer for review before sending to contractor.
	16.	Send three copies of signed contract to TDC: two for TDC Finance and one for the Project Officer.
TDC Finance	17.	Enter or update project information on MIS, using MIS Project Entry Form, and signed contract.
	18.	Forward copy of signed contract to Project Officer.
	19.	Confirm MIS data from contract, print Data Entry Feedback Form (see Appendix 2-11) and forward to Project Officer for verification.
Project Officer	20.	See Chapter 5: Project Monitoring Phase.

CHAPTER 4
APPENDICES

CONTRACTOR SELECTION AND CONTRACT AWARD PHASE

Appendix 4-1	Example of Evaluation Criteria and Process
Appendix 4-2	SSC Requisition for RFP: Guidelines and Sample
Appendix 4-3a	Contracting Document: Routing/Action Slip
Appendix 4-3b	Contracting Document (Involving SSC Bridge Funding): Routing/Action Slip and Sample Memorandum
Appendix 4-4	SSC Requisition for Awarding of Contract: Guidelines and Sample — Annex A Work Statement
Appendix 4-5	Inter-/Intra-Departmental Funding Agreement: Format and Sample
Appendix 4-6	Language Policy and Procedures for TDC Publications
Appendix 4-7	Guidelines for Sole Sourcing
Appendix 4-8	Example of Contribution Agreement
Appendix 4-9	Copies of Report Required from Contractor

Government of Canada | Gouvernement du Canada

MEMORANDUM **NOTE DE SERVICE**

TO / A: N.E. Rudback

FROM / DE: L. Suen

SECURITY CLASSIFICATION · DE SÉCURITÉ:

OUR FILE – N / RÉFÉRENCE: D1450-103-74-2 PJ No. 6823

YOUR FILE – V / RÉFÉRENCE:

DATE: January 22, 1987

SUBJECT / OBJET: **Evaluation of Proposals for Multipurpose Rural Vehicle Evaluation**

1. Introduction

Two proposals were received under a RFP issued to nine companies by DSS in Winnipeg on November 27, 1986.

- Coopers & Lybrand Consulting Group
- Manop Services Ltd./Reid Crowther & Partners Ltd.

2. Evaluation

The two proposals were evaluated by a review committee consisting of:

1) P. Hallet, Chief R&D Program Management
2) R. Nishizaki, Sr. Development Officer, TDC
3) B.A. Smith, Program Officer, TDC

Detailed evaluation scores are attached as Appendix "D". Evaluation Criteria is attached as Appendix "B". A summary of evaluations is as follows:

Company	Score	Price	$/Point
Coopers & Lybrand	45.00	$56,000	$1,244.44
Manop/Reid Crowther	83.00	$66,404	$ 800.05

The score is calculated on 100. To qualify, 60% of total points for each factor and 70% of total points overall are required. Coopers & Lybrand is therefore disqualified.

.../2

The Coopers & Lybrand proposal is disqualified according to the rules of the competition. The low score results from a basic insensitivity to the requirements of the work and an inability to grasp the problem. The company and the project team have no previous or related experience in E&H projects. A schedule of costs was not included. The per diem rates of the project coordinator are high. The ergonomic component of the work is not addressed. The company's competence in area of data collection and analysis is adequate but uninspired.

The Manop/Reid Crowther proposal is fully responsive to the TOR and indicates an excellent understanding of the project requirements. The company is experienced in this field and has a good performance record. A well-qualified team has been assembled to address all the requirements of the work. A comprehensive costs schedule is presented, along with an alternative lower cost budget to carry out the work in a shorter time frame, with a saving of professional travel time. The per diem rates of all the principals are moderate and competitive.

3. Cost

The alternative budget in the Manop/Reid Crowther proposal ($66,404.00) was found to be good value to the Crown and realistic for the tasks required. The lowest of three estimates from professional production companies in Winnipeg was quoted for the audio visual ($8,000.00).

4. Recommendations

While your memo dated October 17, 1986 suggested that approximately $50K be allocated for this project, it does appear to be inadequate for the work required based on the proposals received. It is therefore recommended by the evaluators that DSS negotiate a contract with Manop/Reid Crowther to carry out the work.

Pat Hallet strongly recommends that the professional audio visual be undertaken for presentation to the Minister's Committee and to rural communities across Canada and has agreed to obtain funds from TDPP-E&H program to support this increased level of effort.

5. Agreement with Province

An agreement between TDC and the Province and Manitoba and the Municipality of Minitonas is in preparation (your memo dated October 17, 1986).

6. A copy of this memorandum is attached to the DSS requisition as Appendix "C". Appendix "D" is also attached to the requisition.

Ling Suen

_____

Approved: Executive Director/Date

BAS/gk
Attachments;

Appendix "E"
File: D 1450-103-74-2
P.J.: 6823

TRANSPORTATION DEVELOPMENT CENTRE

EVALUATION CRITERIA

MULTIPURPOSE VEHICLE EVALUATION

October 1986

Proposals will be evaluated on the basis of the following criteria. Therefore, bidders are advised to address each area in sufficient depth to show clearly how effectively the work could be done.

		Points
1.	Quality and Responsiveness of Proposal - 20 points	
A)	Completeness and thoroughness.	10
B)	Understanding of the requirements in the Work Statement.	5
C)	Responsiveness to the terms of reference and schedule.	5
		20
2.	Company and Team Qualifications - 25 points	
A)	Qualification and experience of project staff, especially the project manager.	5
B)	Evidence of good organization, management practices and project administration.	10
C)	Experience and competence in the Elderly and Disabled (E&D) Transportation field and record of past performance.	10
		25
3.	Financial - 10 points	
	Distribution of costs by tasks	10
		10
4.	Technical Competence - 45 points	
A)	Familiarity with data gathering and analysis procedure.	15
B)	Ergonomics and human factors component.	10
C)	Analytical approach	15
D)	Documentation	5
		45
	TOTAL:	100

FILE NO: D1450-103-74-2
PROJECT NO. 6823

APPENDIX "C"

TRANSPORTATION DEVELOPMENT CENTRE

EVALUATION OF PROPOSALS

MULTIPURPOSE RURAL VEHICLE EVALUATION

1. Introduction

Two proposals were received under a RFP issued to nine companies by DSS in Winnipeg on November 27, 1986.

- o Coopers & Lybrand Consulting Group
- o Manop Services Ltd./Reid Crowther & Partners Ltd.

2. Evaluation

The two proposals were evaluated by a review committee consisting of:

1) P. Hallet, Chief R&D Program Management
2) R. Nishizaki, Sr. Development Officer, TDC
3) B.A. Smith, Program Officer, TDC

Detailed evaluation scores are attached as Appendix "D". Evaluation Criteria is attached as Appendix "E". A summary of evaluations is as follows:

Company	Score	Price	$/Point
Coopers & Lybrand	45.00%	$56,000	$1,244.44 (rejected)
Manop/Reid Crowther	83.00%	$66,404	$ 800.05

The score is calculated on 100. To qualify, 60% of total points for each factor and 70% of total points overall are required. Coopers & Lybrand is therefore disqualified.

The Coopers & Lybrand proposal is disqualified according to the rules of the competitions. The low scores results from a basic insensitivity in the requirements of the work and an inability to grasp the problem. The company and the project team have no previous or related experience in E&H projects. A schedule of costs was not included. The per diem rates of the project coordinator are high. The ergonomic component of the work is not addressed. The company's competence in area of data collection and analysis is adequate but uninspired.

.../2

The Manop/Reid Crowther proposal is fully responsive to the TOR and indicates an excellent understanding of the project requirements. The company is experienced in this field and has a good performance record. A well-qualified team has been assembled to address all the requirements of the work. A comprehensive costs schedule is presented, along with an alternative lower cost budget to carry out the work in a shorter time frame, with a saving of professional travel time. The per diem rates of all the principals are moderate and competitive.

3. Cost

The alternative budget in the Manop/Reid Crowther proposal ($66,404.00) was found to be good value to the Crown and realistic for the tasks required. The lowest of three estimates from professional production companies in Winnipeg was quoted for the audio visual ($8,000.00).

4. Recommendations

The evaluators recommend that DSS negotiate a contract with Manop/Reid Crowther to carry out the work, including the audio visual, for a total cost of approximately $74,404.00.

FILE NO: D1450-103-74-2
PROJECT NO. 6823

APPENDIX "D"

TRANSPORTATION DEVELOPMENT CENTRE

RFP EVALUATION

MULTIPURPOSE RURAL VEHICLE EVALUATION

Evaluators:

(1) Pat Hallet
(2) R. Nishizaki
(3) B.A. Smith

Part 1 /20

		C&L	M/R-C
A.	1)	5	4
	2)	5	9
	3)	4	9
B.	1)	2	4
	2)	3	5
	3)	2	5
C.	1)	1	4
	2)	3	4
	3)	2	5
		9.00	16.33

Part 2 /25

		C&L	M/R-C
A.	1)	1	4
	2)	4	5
	3)	4	5
B.	1)	4	8
	2)	8	8
	3)	8	8
C.	1)	2	9
	2)	2	9
	3)	2	9
		11.67	21.67

.../2

Part 3 /10

	C&L	M/R-C
1)	4	9
2)	4	9
3)	4	8
	4.00	8.67

Part 4 /45

		C&L	M/R-C
A.	1)	8	12
	2)	10	12
	3)	11	12
B.	1)	0	9
	2)	1	9
	3)	1	9
C.	1)	4	10
	2)	9	12
	3)	10	13
D.	1)	1	3
	2)	3	4
	3)	3	4
		20.33	36.33

	C&L	M/R-C
Total Score Out of 100	45.00 (Rejected)	83.00

Supply and Services Canada / Approvisionnements et Services Canada

REQUISITION FOR GOODS AND SERVICES - DEMANDE DE BIENS ET DE SERVICES

TO/A: DSS/MAS

Appropriate DSS Regional Supply Centre

FOR AMENDMENT ONLY - AUX FINS DE MODIFICATION SEULE: AMEND NO / MODIF N°; INCREASE / DECREASE / AUGMENTATION - REDUCTION $; PREVIOUS COST / PRIX ANTERIEUR $

CURRENT FUNDING / FINANCEMENT ACTUEL $ XXX,XXX

ACCOUNTING OFFICE CODE / CODE DU BUREAU COMPT: T8200

REQUISITION NO - N° DE LA DEMANDE: ORDER OFF - BUR DEMAN YR - AN SERIAL NO - N° DE SERIE: To be completed by TDC Fin.

PAGE 1 OF / DE X

SSC USE ONLY / ASC SEULEMENT

ORIGINATOR - AUTEUR: Transport Canada

TEL NO - N° DE TEL

ADDRESS INQUIRIES TO - ADRESSER TOUTE DEMANDE DE RENSEIGNEMENTS A: Name of Project Officer, Area Code, Tel. No.

TEL NO - N° DE TEL

DESTINATION: Transportation Development Centre, Guy-Favreau Complex, 200 Dorchester Blvd West, Suite 601, West Tower, Montreal, Quebec. H2Z 1X4

INSPECTION AGENCY - CHARGE DE L'INSPECTION: ☐ CONSIGNEE AT DESTINATION / DESTINATAIRE ☐ SPECIFIED HEREIN / PRECISE DANS LES PRESENTES

QUALITY ASSURANCE - ASSURANCE DE LA QUALITE: ☐ DND / MDN ☐ SPECIFIED HEREIN / PRECISE DANS LES PRESENTES NO N°

INSTRUCTIONS
1. ALL DESCRIPTIONS MUST BE COMPLETED USING ONE OF THE FOLLOWING OCR FONTS: OCR "B", PRESTIGE ELITE, LETTER GOTHIC OR COURIER 72. USE 10 PITCH FONTS ONLY
2. ENSURE ANY TYPEWRITTEN ERRORS ARE CORRECTED ON ALL PARTS
3. FORWARD PARTS 1, 2 AND 3 INTACT TO DSS
4. REMOVE ALL CARBONS PRIOR TO MAILING

1. TOUTES LES DEMANDES DEVRONT ÊTRE REMPLIES EN CARACTERES D'IMPRESSION OCR "B", PRESTIGE ELITE, LETTER GOTHIC OU COURIER 72 AU CHOIX. N'EMPLOYER QUE DES CARACTERES D'IMPRESSION A DIX ESPACES.
2. S'ASSURER QUE LES CORRECTIONS SONT APPORTÉES SUR TOUTES LES FORMULES
3. ENVOYER LES PARTIES 1, 2 ET 3 SANS LES DÉTACHER
4. ENLEVER TOUS LES CARBONES AVANT DE POSTER

CONFIRMATION WITH SSC - CONFIRMATION D'ASC: ☐ TELEPHONE - TELEPHONE ☐ TELEX - TELEX

BUYER'S NAME - NOM DE L'ACHETEUR

FINANCIAL CODE(S) - CODE(S) FINANCIER(S): To be completed by TDC Finance

File No. / Project No.

AMOUNT - MONTANT

INVOICES - ORIGINAL AND TWO COPIES ARE TO BE MADE OUT AND SENT TO / FACTURES - REMPLIR ET ENVOYER L'ORIGINAL ET DEUX COPIES A:
Transportation Development Centre
same address as above
Attention: Supervisor, Records Office

SSC USE ONLY - ASC SEULEMENT

ITEM / ARTICLE	REFERENCE / STOCK NO AND DESCRIPTION - N° DE REFERENCE / N° DE NOMENCLATURE ET DESCRIPTION	DATE REQUIRED / DEMANDE POUR LE (DU M YR)	CONSIGNEE CODE / CODE DU DESTINATAIRE	U OF I / U DE D	QUANTITY / QUANTITE	ESTIMATED COST / PRIX ESTIMATIF	QUAL ASSUR CODE / CODE D'ASS DE LA QUAL	PREVIOUS QUANTITY AND UNIT PRICE / QUANTITE ET PRIX UNITAIRE PRECEDENTS	PREVIOUS CONTRACT NO AND DATE / DATE ET N° DU CONTRAT PRECEDENT
		XX XX XX	T8200			$XXX,XXX			

REQUEST FOR PROPOSAL

Project Title (in Capital Letters)

1. **REQUISITION ITEM**

It is requested that proposals be solicited on behalf of the Transportation Development Centre (TDC) to undertake 'provide a brief description of the work).

(In the case of a combined requisition for RFP and negotiation of contract the following is to be added:)

Furthermore it is requested that DSS subsequently negotiate a satisfactory contract with the contractor selected by TDC as a result of this RFP.

SPECIAL INSTRUCTIONS - INSTRUCTIONS SPECIALES

Enter information you do not want sent to potential contractors but which will help DSS in its purchasing function. Specify exemptions available to contractors for duties or sales tax. Include items such as the need for a bidders conference for complex projects, additional documents to be appendixed, instructions to contractors to submit proposals compatible with certain standards, etc.

RECOMMENDED BY - RECOMMANDE PAR

SIGNATURE DATE

PURSUANT TO SECTION 29(1) OF THE FINANCIAL ADMINISTRATION ACT, FUNDS ARE AVAILABLE
EN VERTUE DE L'ARTICLE 29(1) DE LA LOI SUR L'ADMINISTRATION FINANCIERE DES FONDS SONT DISPONIBLES

SIGNATURE DATE

THE UNDERSIGNED APPROVES THIS REQUISITION AND CERTIFIES THAT THE NECESSARY APPROVALS HAVE BEEN OBTAINED AND REQUESTS SSC TO ACQUIRE AND PROVIDE THE GOODS AND/OR SERVICES DESCRIBED HEREIN (SEE REVERSE)

JE SOUSSIGNÉ APPROUVE LA PRESENTE DEMANDE, CERTIFIE QUE LES APPROBATIONS REQUISES ONT ETE OBTENUES ET DEMANDE AU ASC D'OBTENIR LES BIENS ET SERVICES DECRITS DANS LES PRESENTES (VOIR VERSO)

SIGNATURE DATE

Canada

DSS-MAS 9200 (1/86) 7540-21-899-3586

APPENDIX A-2

2. **TECHNICAL SPECIFICATIONS (OR STUDY REQUIREMENTS)**

Organizations should be requested to submit proposals outlining a methodology and cost to carry out the work described in the Work Statement (or Study Requirements) attached as Appendix "A".

3. **DATE OF ISSUE OF RFP**

The request for proposals shall be issued as soon as possible and no later than (date). Proposals shall be received no later than (x) weeks after the issuance of the RFP.

4. **TARGET DATE FOR ISSUE OF CONTRACT**

In the event that a successful bidder is identified, DSS will be requested in a subsequent requisition to award a contract to carry out the required study, commencing no later than (date).

5. **LEVEL OF EFFORT** (choose one of the following)

5.1 It is estimated that the level of effort would be in the $_____ to $_____ range. No funding is authorized under this requisition.

5.2 The amount of funding which will be made available to carry out the study will be determined after the proposals are received and evaluated. No funding is authorized under this requisition.

NOTE: If known, it should be mentioned whether the form of contract will be:

- cost reimbursable up to a financial limitation
- ceiling price
- firm price (or other alternatives)

6. **EVALUATION CRITERIA**

It is requested that the RFP stipulate that proposals will be judged on the basis of the evaluation criteria shown in Appendix "B".

7. **RIGHTS OF THE CROWN**

It is requested that the RFP stipulate that the right is reserved by the Crown to accept other than the lowest bidder or to reject any or all proposals.

8. **TDC REVIEW OF RFP**

It is requested that the formal RFP be reviewed and agreed upon with TDC prior to its issue, particularly with respect to schedules, evaluation criteria and any clarification that may be required concerning the technical content.

9. **NEGOTIATION OF TECHNICAL WORK CONTENT**

Following joint TDC/DSS assessment of proposals, it is anticipated that DSS will be authorized to award a contract to the contractor whose proposal represents the best value to the Crown and is acceptable when assessed against the evaluation criteria. In this regard, the right is reserved to negotiate changes in the technical content of the most satisfactory proposal. Any such negotiation will be carried out with the participation of the DSS Science Procurement Manager.

10. **POTENTIAL CONTRACTORS** (choose one of the following)

10.1 It is requested that the potential contractors on the attached list be invited to submit proposals (see Appendix "C"). DSS may add other companies from its own source list.

[redacted]

10.2 The response to the "Forthcoming Request for Proposals" item in the R&D Bulletin (date) will provide a list of organizations interested in responding to the RFP. An opportunity is requested to add some names to the list before the RFP is sent out (Note: used only in exceptional cases where there is difficulty in identifying satisfactory bidders).

11. **ATTACHMENTS**

Appendix "A" - Study Requirements and/or Work Statement (see Appendix "A" of Appendix 4-4)

Appendix "B" - Evaluation Criteria (see Appendix 4-1)

Appendix "C" - Potential Contractors

Date
Initials

Sent 1 - DIS NOV 17/86 (GARIEPY)
F. CHAPAIS

REQUISITION FOR GOODS AND SERVICES - DEMANDE DE BIENS ET DE SERVICES

Supply Canada / Services Canada — Approvisionnement et Services Canada

FOR AMENDMENT ONLY - AUX FINS DE MODIFICATION SEULE

$	$	$	

ORDER OF THE DEMAND OR ANY OTHER DEMAND — T8200-6-6547

PAGE 4

TO: Mr. Denis Gariépy

800 Golf Road
Nun's Island
Verdun, Quebec H3E 1G9

ORIGINATOR - AUTEUR: Transport Canada

ADDRESS INQUIRIES TO - ADRESSER TOUTE DEMANDE DE RENSEIGNEMENTS A: H. Posluns (514) 283-0034

TELEPHONE - TELEPHONE / TELEX - TELEX

FINANCIAL CODE(S) - CODE(S) FINANCIER(S): D1455-186 Project 6791/6792/6793

AMOUNT - MONTANT

DESTINATION: Transportation Development Centre (TDC)
Guy-Favreau Complex
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4

INVOICES - ORIGINAL AND TWO COPIES TO BE MADE OUT AND SENT TO FACTURES - REMPLIR ET ENVOYER L'ORIGINAL ET DEUX COPIES A: see destination

INSPECTION & ACCEPTANCE - CHARGE DE L'INSPECTION: LX

QUALITY ASSURANCE - ASSURANCE DE LA QUALITE

ITEM ARTICLE	REFERENCE, STOCK NO. AND DESCRIPTION - NO. DE REFERENCE, NO. DE NOMENCLATURE ET DESCRIPTION	DATE REQUIRED - DEMANDE POUR LE	CONSIGNEE CODE - CODE DU DESTINATAIRE	U OF I / U DE D	QUANTITY / QUANTITE	ESTIMATED COST / PRIX ESTIMATIF	AIR / AIR	PRIX AUTORISE / PRIX AUTORISE	DATE AUTORISE / DATE AUTORISE

REQUEST FOR PROPOSAL: WIND-SHEAR DETECTION - FEASIBILITY STUDY

F. CHAPAIS 3-DEC-86 WILL LIKELY BE OUT (RFP) BY NEXT WEEK

1. **REQUISITION ITEM**

It is requested that proposals be solicited on behalf of the Transportation Development Centre (TDC) to undertake a feasibility study to determine possible technical approaches for the detection, analysis and advance warning of wind-shear conditions, specifically microbursts, in and around Canadian airports.

2. **TECHNICAL SPECIFICATIONS**

Organizations should be requested to submit proposals outlining a methodology and cost to carry out the work described in the Work Statement attached as Appendix 'A'.

SPECIAL INSTRUCTIONS - INSTRUCTIONS SPECIALES

RECOMMENDED BY - RECOMMANDE PAR

SIGNATURE / DATE

CERTIFIED PURSUANT TO SECTION 2(1) OF THE FINANCIAL ADMINISTRATION ACT
CERTIFIED PURSUANT TO SECTION 2(1) DE LA LOI SUR L'ADMINISTRATION FINANCIERE

SIGNATURE / DATE

THE UNDERSIGNED APPROVES THIS REQUISITION AND CERTIFIES THAT THE NECESSARY APPROVALS HAVE BEEN OBTAINED AND REQUESTS DSS TO ACQUIRE AND PROVIDE THE GOODS AND OR SERVICES DESCRIBED HEREIN (SEE REVERSE)

[redacted]

3. DATE OF ISSUE OF REQUEST FOR PROPOSAL (RFP)

The request for proposals shall be issued as soon as possible and no later than December 8, 1986. Proposals shall be received no later than six (6) weeks after the issuance of the RFP.

4. TARGET DATE FOR ISSUE OF CONTRACT

In the event that successful bidders are identified, DSS will be requested in a subsequent requisition to award a contract to carry out the required study, commencing no later than February 16th, 1986.

5. LEVEL OF EFFORT

The exact amount of funding which will be made available to carry out the study will be determined after the proposals are received and evaluated.

It is estimated that the level of effort for each feasibility study will be in the $50,000 to $75,000 range. No funding is authorized under this requisition.

It is requested that potential bidders be informed that the estimated level of effort is approx. eight (8) person-months.

Special note: It is intended to award two independent feasibility study contracts in order to assure a varied scientific approach to the problem.

The form of the contract will be:

1. where appropriate - firm price as agreed prior to commencement of the work or,

2. when a firm price is not considered appropriate - fixed time rates with a ceiling price to be established prior to commencement of the work.

6. EVALUATION CRITERIA

It is requested that the RFP stipulate that proposals will be judged on the evaluation criteria shown in Appendix 'B'.

7. RIGHTS OF THE CROWN

It is requested that the RFP stipulates that the right is reserved by the Crown to accept other than the lowest bidder or to reject any or all proposals.

8. TDC REVIEW OF THE RFP

It is requested that the formal RFP be reviewed and agreed upon with TDC prior to its issue, particularly with respect to schedules, evaluation criteria and any clarification that may be required concerning the technical effort.

9. NEGOTIATIONS ON TECHNICAL WORK CONTENT

Following joint TDC/DSS assessment of proposals, it is anticipated that DSS will be authorized to award a contract to the contractors whose proposals represent the best value to the Crown and is acceptable when assessed against the evaluation criteria. In this regard the right is reserved to negotiate changes in the technical content of the most satisfactory proposal. Any such negotiations will be carried out with the participation of the DSS Science Procurement Manager.

10. POTENTIAL CONTRACTORS

It is requested that the potential contractors on the attached list be invited to submit proposals (see Appendix 'C'). DSS may add other companies from its own source.

11. BIDDERS CONFERENCE

If deemed necessary TDC is prepared to participate in a bidders conference in order to further clarify the scope of the work.

12. ATTACHMENTS

Appendix 'A' - Work Statement
Appendix 'B' - Evaluation Criteria
Appendix 'C' - Potential Contractors

APPENDIX 'A'

TRANSPORTATION DEVELOPMENT CENTRE

WORK STATEMENT

WIND-SHEAR DETECTION - FEASIBILITY STUDY

NOVEMBER 1986

1. INTRODUCTION

Wind-shear may be defined as any change in wind speed or direction occurring over a short distance or brief period of time. Recent wind-shear related incidents in and around airports have caused an increased awareness within the air transportation community of the hazards related to this meteorological phenomena. A pressing safety related need has therefore developed for the capability to detect and alert users regarding wind-shear conditions, in particular, microbursts.

In response to this need, Transport Canada's Aviation Group has tasked TDC to undertake a feasibility study to determine possible technical approaches for the detection and analysis of wind-shear-conditions, specifically microbursts, in and around Canadian airports. Once this wind-shear condition has been detected, an advance warning should be issued to users so that preventive or corrective action can be taken.

Two independent research activities will be carried out in order to assure a varied scientific approach to the problem and will include the following major topics:

- detection methods via sensors, transducers, etc.;
- data gathering and analysis for various meteorological conditions;
- issue of advance warning to users;
- capability of Canadian industry to develop and produce the recommended technology in order to offer a cost effective solution to the problem in Canada.

No hardware would be required as an output of this project. Following evaluation of the study results, a follow-on design, prototype construction and evaluation effort may be undertaken as a separate project.

2. MODAL OBJECTIVE

To develop expertise, techniques and equipment in support of airways services for the improvement of safety, efficiency and productivity in Canadian air operations.

3. MODAL SUB-OBJECTIVE

To improve the processing of acquired data and the methods of assessment of the data and generation of control decisions.

4. PROJECT OBJECTIVE

To undertake a feasibility study to determine possible methods to a) detect wind-shear conditions, in particular microbursts in and around Canadian airports; b) to identify the existence of wind-shear conditions from the gathered meteorological data, and c) to issue an advance warning to users in time to prevent hazardous flying conditions. To examine Canadian industry capabilities to develop and produce the recommended technology.

.../2

5. DETAILED STATEMENT OF WORK

The work constituting this project shall include the following tasks:

5.1 Develop a detailed work plan including activity schedule, cash flow projections, project management control and documentation procedures within three (3) weeks of effective commencement date. Submit to TDC for review and approval.

5.2 Define detailed user requirements and specifications by consulting with Transport Canada's Aviation Group personnel and produce a user requirement and technical specification document for the system. Such a specification is to cover, among others, the following aspects:

5.2.1 Evaluation requirements including detection range, system time response for wind-shear/microburst detection and signal analysis, sufficient alert time for users, man-machine interface, etc.

5.2.2 A thorough review of existing meteorological analyses of the wind-shear phenomena including associated microbursts, horizontal winds and vertical downdrafts, violent thunderstorm/rainstorm activity, etc., likely to produce hazardous conditions for aviation in the vicinity of airports.

Following this review, a definition of parameters should be provided in order to model or characterize a typical wind-shear/microburst condition. Some parameters or pattern of parameters would likely include the following:

- pattern of wind velocity and direction;
- change and rate of change of wind velocity (increasing and decreasing headwinds/tailwinds);
- change in wind direction (vertical downdrafts, horizontal shear);
- pressure gradients;
- temperature differential;
- particle density and movement;
- presence of precipitation and associated precipitation movement;
- rate of evaporation;
- pattern of thunderstorm/rainstorm activity;
- etc.

Note: Both wet and dry (i.e. non-precipitation) windshear conditions should be considered in the analysis.

5.2.3 A comprehensive investigation and literature search to determine the current state of wind-shear detection technology including transducers and sensors capable of providing microburst related meteorological data and combining the information gathered from Sections 5.2.1 and 5.2.2 above.

5.3 Submit and present (with the aid of visual presentation materials) the proposed user requirements and specifications to a Technical Review Committee. Once these requirements and specifications have been reviewed and approved, the contractor(s) will be given written authority to proceed. The location of this presentation is tentatively set for the Ottawa area.

5.4 Study feasible technical approaches to provide wind-shear microburst detection and early warning as formulated under the evaluation and environmental requirements and specifications in Section 5.2 above. Such technologies as short range Doppler Radars and X-band Radars may be suitable for evaluation. Existing radar technology or other suitable radiation emitting systems may also be considered.

.../3

5.5 Recommend a preferred method and provide a conceptual design of the recommended system.

5.6 Provide an estimated cost of the recommended system as outlined in Section 5.5 above.

5.7 Submit the following documentation for review by Transport Canada:

- User's Requirements;
- Technical Specifications;
- Feasibility Study and Recommendations;
- Conceptual Design;
- Cost Estimate.

5.8 Prepare and deliver to TDC a draft and final report describing the work carried out, project results and conclusions. These reports shall be prepared and submitted for approval in accordance with Section 8 "REPORTING REQUIREMENTS".

5.9 At the conclusion of the work, and no later than the submission of the final reports, present with the aid of slides, overheads, or other presentation materials, the work carried out and the results achieved. The presentation material is to be submitted to TDC as a deliverable item. The location of this presentation is tentatively scheduled for the Montreal area.

6. PROJECT ADMINISTRATION

The Executive Director, Transportation Development Centre (TDC) will appoint a Project Officer to manage the project on behalf of TDC. A Technical Review Committee will be convened to counsel the Project Officer, to monitor progress and provide technical review and direction on the work to be done.

Contract administration will be provided by Supply and Services Canada (DSS).

7. PROJECT CONTROL

The project shall be controlled by CPM, PERT, SPEC or equivalent responsibility assignment and scheduling method. Budgets and schedules for each project task element should be prepared at the start of the project and monitored regularly to ensure resources available are compatible with estimates to complete the work. It is expected that work under this contract will span a period of eight (8) months.

8. REPORTING REQUIREMENTS

8.1 Progress Reports

To facilitate the management of the project, a minimum of three (3) copies of the progress reports shall be submitted on a monthly basis to the TDC Project Officer with a copy to the DSS Science Procurement Manager. These reports shall be short and concise, not exceeding two typewritten pages.

The format of the progress report should be as follows:

8.1.1 A list of all persons actively working on the project and their functions.

8.1.2 Current status of work, containing an estimate of the percentage of work completed, the percentage of time elapsed and a clear statement as to whether the project will or will not be completed within the established schedule and the agreed financial limitations.

8.1.3 Work accomplished since the period last reported.

8.1.4 Problem areas, if any.

.../4

8.1.5 Work to be addressed and expected to be achieved in the coming months.

8.1.6 Any action required by TDC.

8.1.7 Contact made with outside agencies or companies, or major visits planned in connection with the project.

8.1.8 Other important information deemed to be appropriate.

8.2 Publication Standards

All reports with the exception of progress reports and interim reports shall be prepared for publication in accordance with the "TDC Publication Standards and Guidelines for Contractors (TP 929)",(the latest issue to be provided to the contractor by the DSS Science Procurement Manager at the contract negotiation stage) and are thus subject to the following requirements:

8.2.1 Reports will be assigned a TP number by TDC;

8.2.2 Metric units (S.I.) shall be used in all reports. (Unless special exception is warranted);

8.2.3 Reports shall be prepared in English or French;

8.2.4 Reports must include a summary in English and French, either as a section in the report or as a separate document (see TP 929, section 3.7);

8.2.5 A bilingual Report Documentation Form (RDF) shall be included in every report as specified in TP 929, Section 3.4. Blank forms (see TP 929, Appendix A) will be supplied by TDC;

8.2.6 Translation shall be provided in the case of;
* a) the RDF by TDC / the contractor;
* b) the summary by TDC / the contractor;
* c) the report by TDC / the contractor;

8.3 Publication Schedule

8.3.1 Reports shall be submitted in accordance with the following:

a) 5 copies each of:
-draft reports (English or French)
-Report Documentation Form (English and French)
delivered (12) months after contract signing date;

b) TDC comments on draft reports to contractor within not more than (4) weeks after receipt.

* c) ### copies of summary reports:
* -## in English
* -## in French
delivered (4) weeks after receipt of TDC's comments

* d) ## copies of final published reports
* -## in English
* -## in French
delivered (4) weeks after receipt of TDC's comments.

8.3.2 For control purposes, all reports, except progress reports, shall be delivered to:

Office Service Supervisor
Transportation Development Centre
200 Dorchester Blvd West
Suite 601, West Tower
Montreal, Quebec
H2Z 1X4

9. SPECIAL INSTRUCTIONS

All items marked "*" contain values that are to be determined.

APPENDIX 'B'

TRANSPORTATION DEVELOPMENT CENTRE

EVALUATION CRITERIA

WIND-SHEAR DETECTION - FEASIBILITY STUDY

NOVEMBER 1986

Proposals will be evaluated separately on the basis of the following criteria. Bidders are advised to address each area in sufficient detail.

		MAX. POSSIBLE SCORE
1. SCIENTIFIC AND TECHNICAL STRATEGY		50
1.1 The understanding of the type of work to be undertaken, the responsibilities, and the outputs required.	10	
1.2 Compliance with the Statement of Work	10	
1.3 The proposed method or technical approach to carry out the work.	10	
1.4 The level of technical risk associated with the proposed methodology.	10	
1.5 The adequacy and completeness of work plan and schedule.	10	
2. COMPANY QUALIFICATIONS		30
2.1 Competence as proven by similar or related work	15	
2.2 Competence with respect to project administration of similar or related work.	15	
3. CONTRACTOR TEAM QUALIFICATIONS		20
3.1 Project Manager and Project Engineer relative experience, qualifications, position within the organization.	5	
3.2 Experience and qualifications of key personnel assigned to carry out the work as outlined in the proposal.	5	
3.3 Availability of proposed staff to proceed immediately with the project in accordance with the established schedule.	5	
3,4 Adequate management, clerical and secretarial staff and facilities to competently support the proposed team.	5	
TOTAL MAXIMUM POSSIBLE SCORE		100

NOTE: In order to be considered acceptable, proposals must receive 50% or more of the points available in each of the above three categories and 65% or more points in total.

APPENDIX 'C'

TRANSPORTATION DEVELOPMENT CENTRE

POTENTIAL CONTRACTORS

WIND-SHEAR DETECTION - FEASIBILITY STUDY

NOVEMBER 1986

1. COMDEV
155 Sheldon Drive
Cambridge, Ontario
N1R 7H6
Att: W. Niel Russel (519)622-2300

2. Canadian Marconi
Radar Division
415 Legget Drive
P.O. Box 13336
Kanata, Ontario
K2K 2B2
Att: George Hendry
Marketing Department

3. Canadian Astronautics Ltd (CAL)
1050 Morrison Drive
Ottawa, Ontario
K2H 8K7

4. McDonald Dettwiler and Associates
3751 Shell Road
Richmond, B.C.
V6X 2Z9

5. CAE Electronics Limited
8585 Côte de Liesse Road
St. Laurent, Quebec
H4T 1G6

6. Raytheon Canada Limited
P.O. Box 1619
400 Phillip Street
Waterloo, Ontario
N2J 4K6

7. McMaster University
Communications Research Laboratory
Building 43, Room 101
1280 Main St. West
Hamilton, Ontario L8S 4K1
Att: Prof. Simon Haykin

8. Micronav Limited
Point Edward Marine Park
P.O. Box 1261
Sydney, Nova Scotia
B1P 6J9

9. Davis Engineering
1260 Old Innes Road
Ottawa, Ontario
K1B 3C3

10. Litton Systems Canada Limited
25 Cityview Drive
Rexdale, Ontario
M9W 5A7

11. SED Systems
P.O. Box 1464
Saskatoon, Saskatchewan
S7K 3P7

12. Andrew Antenna Company Limited
606 Beech Street
P.O. Box 177
Witney, Ontario
L1N 5S2

13. Arctic Sciences Limited
1986 Mills Road, R.R. 2
Sidney, B.C.
V8L 3S1

14. McGill University
Physics Department (Radar Laboratory)
3600 University Avenue
Montreal, Quebec H3A 2T8
Att. Prof. Geoff Austin

15. Alberta Research Council

Transportation Development Centre
Centre de développement des transports

Routing Slip/ Bordereau d'acheminement

CONTRACTING DOCUMENT/DOCUMENT CONTRACTUEL

Contract Title: / Titre du Contrat: WIND AND WAVE CLIMATE ATLAS

TDC Project No.: / No. de Projet CDT: 6892/6894

TDC File No.: / No. de Dossier CDT: D 1460-140-3

Contractor: / Contractant: MacLaren Plansearch Limited

DSS or TC Contract No.: / No. de Contrat MAS ou TC:

Project Officer: / Agent de Projet: Thomas H. Peirce

Requisition No.: / No. de commande:

Responsibility Centre No.: / No. du Centre de Responsabilité: 257150

Amendment No.: / No. de Révision:

Type of Contracting Document/Type de Document Contractuel:

- [X] DSS REQUISITION (Form DSS 10440) Commande MAS
- [ ] Service Order (Form DSS 7274) Commande de Service
- [ ] Interdepartmental Agreement Contrat interministériel
- [ ] Intradepartmental Intraministériel
- [ ] Service Contract (Shortform) Contrat de Service
- [ ] DOT Contract (DGCT) Contrat DOT

Authority to Enter into Contract/Autorisation de passer un contrat:

- [X] Approval-in-Principle/Approbation-de-principe — DATE 25/03/87
- [ ] Treasury Board/Conseil du Trésor — T.B. No.: / C.T. No.:

~~TDC~~ TRANS BUDGET: CY / CY + 1 / CY + 2 / Future Years

BUDGET ~~CDT~~: AC $ 30,000 / AC + 1 $ 91,820 / AC + 2 / Années futures $ ____ TOTAL $ 121,820

ROUTE TO ACHEMINER VERS (Name/Nom)	RESPONSIBILITY RESPONSABILITÉ	ACTION	RECEIVED REÇU Date	RECEIVED REÇU Init.	FORWARDED ACHEMINÉ Date	FORWARDED ACHEMINÉ Init.
	Project Officer/ Agent de Projet T.H. Peirce	Prepare Contracting Document/ Préparation du document contractuel			19/11/87	
R.S. Nishizaki	Division Head/ Chef de Division	Review/Examen	20/11		25/11/87	
A. Sidhom	Budget & Finance Officer/ Agent-Budget et Finance	Review and Code/ Examen et Codification	26/11/87		26/11/87	
N.E. Rudback	Division Head/ EDTDC/DGRD Chef de Division EDTDC/DGRD	Approve/Approbation	27/11/87		27/11	
Sidhom	Budget & Finance Officer/ Agent-Budget et Finance	Review and coordinate/ Examen et coordination	30/11/87		30/11/87	
P. Germier	Accounts Officer/ Responsable des Comptes	Commitment Control/ Contrôle d'engagement CFR 87-11-30				

NOTE: Attach Contracting Document and Work Statement.
Annexer le document contractuel et la description des tâches.

APPENDIX A-8

Transportation Development Centre
Centre de développement des transports

Routing Slip/ Bordereau d'acheminement

CONTRACTING DOCUMENT/DOCUMENT CONTRACTUEL

Contract Title: / Titre du Contrat: ICEBREAKER MIDBODY RESISTANCE

TDC Project No.: / No. de Projet CDT: 6971/2 ~~8~~ M/7

TDC File No.: / No. de Dossier CDT: D 1460-255

Contractor: / Contractant: Melville Shipping Ltd.

DSS or TC Contract No.: / No. de Contrat MAS ou TC:

Project Officer: / Agent de Projet: Thomas H. Peirce

Requisition No.: / No. de commande: T8200-7-7529

Responsibility Centre No.: / No. du Centre de Responsabilité: 257150

Amendment No.: / No. de Révision:

Type of Contracting Document/Type de Document Contractuel:

- [X] DSS REQUISITION (Form DSS 10440) / Commande MAS
- [ ] Service Order (Form DSS 7274) / Commande de Service
- [ ] Interdepartmental Agreement / Contrat interministériel
- [ ] Intradepartmental / Intraministériel
- [ ] Service Contract (Shortform) / Contrat de Service
- [ ] DOT Contract (DGCT) / Contrat DOT

Authority to Enter into Contract/Autorisation de passer un contrat:

6972 DSS. 50 000.

- [X] Approval-in-Principle/Approbation-de-principe
- [ ] Treasury Board/Conseil du Trésor

T.B. No.: / C.T. No.:

DATE 07/08/87

6971 TDC O&M 34,794.00
6972 TDC EXT 35,000.

TDC BUDGET: CY DSS50,000 CY + 1 CY + 2 Future Years
BUDGET CDT: AC $ 69794 AC + 1 $ AC + 2 Années futures $ TOTAL $ 119,794

ROUTE TO ACHEMINER VERS (Name/Nom)	RESPONSIBILITY RESPONSABILITÉ	ACTION	RECEIVED REÇU Date	RECEIVED REÇU Init.	FORWARDED ACHEMINÉ Date	FORWARDED ACHEMINÉ Init.
	Project Officer/ Agent de Projet T.H. Peirce	Prepare Contracting Document/ Préparation du document contractuel			14/08/87	
R.S. Nishizaki	Division Head/ Chef de Division	Review/Examen	14/08/87		17/08/87	
A. Sidhom	Budget & Finance Officer/ Agent-Budget et Finance	Review and Code/ Examen et Codification	20/8/87		21/8/87	
N.E. Rudback	Directeur exécutif/ Executive Director	Approve/Approbation	21/8/87		24/8/87	
R.R. Mayes	ACD	Review/Examen	26/8/87		26/08	
M. Brennan	ACM	Approve/Approbation Appendix "C"	27/8		27/8	
A. Sidhom	Budget & Finance Officer/ Agent-Budget et Finance -TDC	Review and coordinate/ Examen et coordination	27/8/87		27/8/87	
P. Germier	Accounts Officer/ Responsable des Comptes	Commitment Control/ Contrôle d'engagement	17/08/87			

NOTE: Attach Contracting Document and Work Statement.
Annexer le document contractuel et la description des tâches.

APPENDIX A-3b

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / À: R.R. ~~Mayes~~ - ACD NER/for RRM.
M. Brennan - ACM

FROM / DE: N.E. Rudback - ZCD-Montreal

SECURITY - CLASSIFICATION - DE SÉCURITÉ

OUR FILE — N / RÉFÉRENCE: D 1460-255

YOUR FILE — V / RÉFÉRENCE:

DATE: August 12, 1987

SUBJECT / OBJET: DSS BRIDGE FUNDING REQUEST FOR "ICEBREAKER MIDBODY RESISTANCE"

Attached is a DSS requisition for the above referenced project including an "Unsolicited Proposal Funding Request" (Appendix "C") for which Mr. Brennan's approval and signature are requested.

The subject proposal investigates the effect of parallel midbody length and associated length/breadth ratio on icebreaker resistance using the existing modular model of the M.V. Arctic. These investigations will take into account the fact that the M.V. Arctic has had two bows and so the resultant effects of bow shape on midbody resistance will also be examined.

This project is considered to be a very important step towards closing a major gap in present knowledge concerning the effect of hull dimensional variations on icebreaking resistance. This is a matter of fundamental importance in the successful design of the coming generation of large patrol and cargo icebreakers. These designs offer major opportunities for dimensional optimisation with associated cost-benefit ramifications.

TDC will provide a maximum of $34,794 for the project with the remaining $85,000 shared by DSS for $50,000 and NRC for $35,000 all in FY 1987/88.

The DSS Bridge Funding request is for $50,000.

For/ [signature]
N.E. Rudback

THP/NER/ms

ACD RECEIVED AUG 26 1987 REÇU 119

GC 177

7540-21-796-8888

APPENDIX 'C'

UNSOLICITED PROPOSAL FUNDING REQUEST

PROJECT TITLE: ICEBREAKER MIDBODY RESISTANCE

1. SPONSORING DEPARTMENT FISCAL YEAR FUNDING REQUIREMENTS

U/P Number: M7-001 TDC Project #: _____

Department: Transport TDC File #: D-1460-255

Requisition #: _____

	FISCAL YEAR			
	1987/88	19 /	19 /	TOTAL
a) Amount available from TDC appropriation.	34,794			34,794
b) Amount available from _____ appropriation (through TDC).	35,000			35,000
c) Amount requested from DSS Bridge Fund	50,000			50,000
Total Estimated Cost of Proposal (a + b + c)	119,794			119.794

d) Estimated total follow-on costs over the next ____ years if proposal is successful.....$ _____

Total Program (a + b + c + d).....$ 119.794

2. REQUIRED GUARANTEES PER CONTRACTING-OUT POLICY

a) If the proposal is successful, all follow-on costs will be funded in the course of Transport Canada's normal budgetary process.

b) The funds requested from the DSS Unsolicited Proposal fund are not currently available from the TDC appropriation.

_____ _____
ADM, Transport Canada Date

For DSS use only. DSS Fiscal Year Funding Requested

19 /	19 /	TOTAL	APPROVED BY	DATE

TDC/CTP 81-002

Supply and Services Canada — Approvisionnements et Services Canada

REQUISITION FOR GOODS AND SERVICES - DEMANDE DE BIENS ET DE SERVICES

To: DSS/MAS

Appropriate DSS Regional Supply Centre

FOR AMENDMENT ONLY - AUX FINS DE MODIFICATION SEULE: AMEND NO / MODIF N° — INCREASE / DECREASE AUGMENTATION / REDUCTION $ — PREVIOUS COST / PRIX ANTERIEUR $ — CURRENT FUNDING / FINANCEMENT ACTUEL $ XXX XXX

ACCOUNTING OFFICE CODE / CODE DU BUREAU COMPT: T8200

REQUISITION NO - N° DE LA DEMANDE: ORDER OFF - BUR DEMAN YR - AN — SERIAL NO - N° DE SERIE: To be completed by TDC Fin.

PAGE 1 OF / DE X

SSC USE ONLY / ASC SEULEMENT

ORIGINATOR - AUTEUR: Transport Canada

TEL NO - N° DE TEL

ADDRESS INQUIRIES TO - ADRESSER TOUTE DEMANDE DE RENSEIGNEMENTS A: Name of Project Officer, Area Code, Tel. No

TEL NO - N° DE TEL

DESTINATION:
Transportation Development Centre
Guy-Favreau Complex
200 Dorchester Blvd West
Suite 601, West Tower
Montreal, Quebec. H2Z 1X4

INSPECTION AGENCY - CHARGE DE L'INSPECTION: CONSIGNEE AT DESTINATION / DESTINATAIRE — SPECIFIED HEREIN / PRECISE DANS LES PRESENTES

QUALITY ASSURANCE - ASSURANCE DE LA QUALITE: SND NSN — SPECIFIED HEREIN / PRECISE DANS LES PRESENTES — NO

INSTRUCTIONS
1 ALL REQUISITIONS MUST BE COMPLETED USING ONE OF THE FOLLOWING OCR FONTS: OCR "B" PRESTIGE ELITE, LETTER GOTHIC OR COURIER 72 USE 10 PITCH FONTS ONLY
2 ENSURE ANY TYPEWRITTEN ERRORS ARE CORRECTED ON ALL PARTS
3 DETACH PARTS 1, 2 AND 3 INTACT TO STUB
4 REMOVE ALL CARBONS PRIOR TO MAILING

1 TOUTES LES DEMANDES DOIVENT ETRE REMPLIES EN CARACTERES D'IMPRESSION OCR "B" PRESTIGE ELITE, LETTER GOTHIC OU COURIER 72 AU CHOIX N'EMPLOYER QUE DES CARACTERES D'IMPRESSION A DIX ESPACES
2 S'ASSURER QUE LES CORRECTIONS SONT APPORTEES SUR TOUTES LES FORMULES
3 ENVOYER LES PARTIES 1, 2 ET 3 SANS LES DETACHER
4 ENLEVER TOUS LES CARBONES AVANT DE POSTER

CONFIRMATION WITH SSC - CONFIRMATION D'ASC: TELEPHONE - TELEPHONE / TELEX - TELEX

BUYER'S NAME - NOM DE L'ACHETEUR

FINANCIAL CODING - CODAGE FINANCIER: To be completed by TDC Finance

File No. / Project No.

AMOUNT - MONTANT

INVOICES - ORIGINAL AND TWO COPIES ARE TO BE MADE OUT AND SENT TO
FACTURES - REMPLIR ET ENVOYER L'ORIGINAL ET DEUX COPIES A:
Transportation Development Centre
same address as above
Attention: Supervisor, Records Office

SSC USE ONLY - ASC SEULEMENT

ITEM / ARTICLE	REFERENCE / STOCK NO AND DESCRIPTION - N° DE REFERENCE / N° DE NOMENCLATURE ET DESCRIPTION	DATE REQUIRED / DEMANDE POUR LE (DJ MO YA)	CONSIGNEE CODE / CODE DU DESTINATAIRE	U OF I / U DE D	QUANTITY / QUANTITE	ESTIMATED COST / PRIX ESTIMATIF	QUAL SYSUP CODE / CODE D'ASS DE LA QUAL	PREVIOUS QUANTITY AND UNIT PRICE / QUANTITE ET PRIX UNITAIRE PRECEDENTS	PREVIOUS CONTRACT NO AND DATE / DATE ET N° DU CONTRAT PRECEDENT
		XX XX XX	T8200			$XXX,XXX			

PROJECT TITLE (IN CAPITAL LETTERS)

1. **REQUISITION ITEM**

It is requested that: (choose one of the following)

1.1 a (directed) contract be awarded to (type name and address of contractor) to undertake (provide a brief description of the work).

1.2 a shared cost contract be negotiated with (type name and address of contractor) to undertake (provide a brief description of the work). (Explain the nature of the sharing arrangement, i.e. financial limitation, sharing ratio, etc.)

SPECIAL INSTRUCTIONS - INSTRUCTIONS SPECIALES

RECOMMENDED BY - RECOMMANDE PAR

SIGNATURE — DATE

PURSUANT TO SECTION 25(1) OF THE FINANCIAL ADMINISTRATION ACT FUNDS ARE AVAILABLE
EN VERTUE DE L'ARTICLE 25(1) DE LA LOI SUR L'ADMINISTRATION FINANCIERE DES FONDS SONT DISPONIBLES

SIGNATURE — DATE

THE UNDERSIGNED APPROVES THIS REQUISITION AND CERTIFIES THAT THE NECESSARY APPROVALS HAVE BEEN OBTAINED AND REQUESTS SSC TO ACQUIRE AND PROVIDE THE GOODS AND/OR SERVICES DESCRIBED HEREIN (SEE REVERSE)

JE SOUSSIGNE APPROUVE LA PRESENTE DEMANDE CERTIFIE QUE LES APPROBATIONS REQUISES ONT ETE OBTENUES ET DEMANDE AU ASC D'OBTENIR LES BIENS ET SERVICES DECRITS DANS LES PRESENTES (VOIR VERSO)

SIGNATURE — DATE

Canada

DSS MAS 1(891) (1 No. 7540-21-[illegible])

APPENDIX A-4

1.3 (an) amendment(s) be incorporated into DSS Contract Number _____ with (type name and address of contractor) relating to (describe nature of amendment, followed by details).

NOTE: in the case of an amendment, the following standard clauses do not apply, with the exception of Nos 6 and 9, when applicable.

2. **EFFECTIVE START DATE**

The effective start date for this contract should be_____.

(For urgent contracts less than $30,000 in value, the following clause may be added:)

Please handle in accordance with agreement for accelerated placement of small contracts.

(If it is recognized that the effective start date will constrain negotiations for the contract, include the following clause:)

This is an urgent requirement and time is of the essence. It is imperative that the contractor be authorized to proceed by (date). If a definitive contract cannot be executed by that date, DSS is instructed to issue to the contractor by telex or telegram work go-ahead on a price to be negotiated basis, pending completion of negotiations.

3. **SELECTION OF CONTRACTOR** (choose one of the following)

3.1 (If a directed contract)

The choice of (type name of contractor) is made on the following basis: (provide a brief substantiation).

NOTE: for justifying circumstances frequently encountered, refer to Treasury Board Guidelines on Contracting in the Federal Government, Section 5.48, June 1975 (see Appendix 4-6).

3.2 (if a selection of the contractor results from a Request for Proposal (RFP))

(Type name of contractor) has been selected to carry out this work on the basis of competitive bids made in response to a Transportation Development Centre (TDC) initiated RFP.

3.3 (If an unsolicited proposal)

The project results from an unsolicited proposal submitted to (type name of organization) and accepted in principle by Transport Canada in a meeting held (date) at which representatives from (list name of representatives (were also present. It was subsequently decided that TDC would be the Scientific Authority on behalf of Transport Canada, (and that the project was eligible for the DSS Bridge Fund, if applicable).

4. **WORK STATEMENT**

The work statement attached (revision date _____ for amendments) as Appendix "A" describes the objectives and scope of the work to be undertaken, reporting requirements (and other deliverables) and shall form the basis for negotiation of a mutually agreeable contract.

NOTE: when there is a proposal (i.e. U/P or RFP), identify variations in work statement with Contractor's proposal, where appropriate.

TYPE OF CONTRACT

Based on the scope of the work, it is envisaged that:

5.1 (If a financial limitation contract)

Progress payments shall be made to the contractor up to the financial limitation of $____ as specified in Appendix "B".

5.2 (If a milestone payment contract)

Payment of pre-established amounts shall be on a milestone completion basis to be coincidental with Work Statement items.

5.3 (If a ceiling price contract)

All work agreed upon shall be completed within the ceiling price authorized by this requisition. The contract shall specify that the contractor is financially obligated to complete and report on all work agreed upon.

5.4 (If a firm price contract)

Payment shall be on receipt of the deliverable(s) specified in the Work Statement, Appendix "A".

6. **ESTIMATED COST BREAKDOWN**

The estimated cost breakdown (revision date _____ for amendments) for the work included within the scope of the contract is attached as Appendix "B". Upon award of contract against this requisition any funds remaining are automatically withdrawn.

NOTE: when it is known that a tax exemption might be applicable (e.g. FST or customs), this should also be mentioned.

7. **DSS BRIDGE FUNDING** (when applicable)

Transport Canada is unable to fund this work at present from internal resources as no provision was made for this project (in the current FY or future years). It is therefore requested that an amount of $_____ be provided for the project from the DSS Bridge Fund for unsolicited proposals. Should follow-on work result from this project, TDC shall arrange to provide any necessary further funding.

5	X	To be completed by TDC Finance

NOTE: a) for requirements re DSS Bridge Funding, refer to Treasury Board Guidelines on Contracting-out the Government's Requirements in Science and Technology, Section 32, April 1977 (see Annex 2);

b) an "Unsolicited Proposal Funding Request" attached as Appendix "C" is also required for signature of ADMPC.

8. **METHOD OF PAYMENT**

It is requested that progress payments be made as work is done, up to 90% of the total contract amount. All amounts retained as holdback, and which can be deemed to be earned on the basis of work accomplished, including profit, fee, CVA, etc., are requested to be included in each invoice, with any amounts to be retained as holdback being so designated and subtracted from the progress payments.

NOTE: in special cases deviations from this method of payment can arise.

9. **LANGUAGE OF PUBLICATION**

(Reports may be prepared in the official language of the contractor's choice. All technical reports must include an English and French report documentation form, and report summary. Some reports need to be produced in both official languages; others require only a bilingual summary section or document. Language requirements are determined by TDC prior to contract negotiation (see Appendix 4-6). The contractor's ability to provide report documentation forms, summaries and/or reports in the second official language is discussed during contract negotiation. The respective responsibilities of TDC and the contractor regarding the translation and production of reports and/or parts of reports are to be defined in detail in the contract Work Statement, Appendix "A". Each contract must indicate a separate budget item for the translation/editing requirements of the project's report(s).

10. **REPLACEMENT OF PERSONNEL** (optional but preferable)

The contractor's Project Manager (name) and/or key personnel (names and titles) shall not be replaced during the term of the contract without prior written approval of TDC.

11. **CONTRACT NEGOTIATIONS**

It is requested that TDC participate with DSS in negotiations with the contractor relating to the clarification of the work to be undertaken.

12. **TDC REVIEW OF CONTRACT**

It is requested that a copy of the (contract or amendment) be submitted to TDC for review and approval before being transmitted to the contractor. This is to be done by routing a copy of the final proof to TDC. The printing and distribution should be withheld subject to TDC agreement on the content of the contract in its final form.

NOTE: in some cases, the first sentence only would suffice, TDC Project Officer to use own judgement.

13. **ATTACHMENTS**

Appendix "A" - Work Statement
Appendix "B" - Estimated Cost Breakdown
Appendix "C" - Unsolicited Proposal Funding Request (when applicable)

NOTE: a copy of all referenced supporting documents should be attached to the requisition.

14. **REFERENCES**

Proposal title, number, date, source, title and number of referenced requisitions, TDC Project Nos., DSS Contract Nos., and relevant correspondence.

GUIDELINES RE CONTENT AND FORMAT

Appendix "A"

Revision Date: (1)

TRANSPORTATION DEVELOPMENT CENTRE

WORK STATEMENT

PROJECT TITLE IN CAPITAL LETTERS
AND UNDERLINED (2 LINES MAXIMUM)

(date)

1. INTRODUCTION

(Include an introduction if it will facilitate all parties to have a common appreciation of the background, rationale and expectations for the project, and include any special characteristics - the Background section of the Project Justification Memorandum may be a sufficient introduction)

2. MODAL OBJECTIVE

(Same as for Project Justification Memorandum)

3. MODAL SUB-OBJECTIVE(S)

(Same as for Project Justification Memorandum)

4. PROJECT OBJECTIVE(S)

(Same as for Project Justification Memorandum)

5. DETAILED STATEMENT OF WORK

The work constituting this project shall include the following elements and shall be consistent with the proposal entitled (type title), dated (date):

NOTE: when there is a proposal (i.e. U/P or RFP), identify variations in work statement with contractor's proposal, where appropriate.

5.1 Develop a detailed work plan, activity schedule, cash flow projection, project management control and documentation procedures within (so many weeks) of effective commencement date. Submit to TDC for review and approval. (The requirements listed herein should be in proportion to the complexity of the project.)

5.2 (List the remaining work items in point form in the order in which they are naturally performed and/or which would result in the completion of milestone events.)

5.3 Prepare and deliver to TDC "x" copies of a final technical report (add if applicable: "x" copies of interim report(s) and "x" copies of a summary report) describing the work carried out and the results achieved. The report shall be prepared and submitted for approval in accordance with Section 10 "Reporting Requirements".

5.4 Any deliverable other than a report (hardware, prototype, etc.) is to be specified.

6. ROLE OF OTHER PARTY(IES) (optional)

(When, in order to mount the overall project, other organizations are contracted by TDC, their roles and responsibilities vis-à-vis this project should be summarized.)

(1) Applies to amendments

/2...

7. SPECIAL INSTRUCTIONS

7.1 Information Dissemination

7.1.1 Credit for TDC Support

Contractors are encouraged to publicize their research: however all publicity is to be coordinated with the TDC Project Officer, and credits are to be given to TDC involvement, giving particular care to the spelling of "Transportation Development Centre".

7.1.2 Illustrative Deliverables

Suitable opportunities for visual material creation should be sought during the course of the contract in the form of slides, photographs, video tapes or drawings, illustrating the concepts and technical equipment being developed or tested. All illustrative material of professional quality shall be delivered to TDC in January and June, or as determined by the TDC Project Officer.

7.1.3 Presentation Materials Deliverables

At the conclusion of the work, and no later than the submission of the final reports, a slide and/or videotaped presentation on the work carried out and on results achieved is to be delivered to TDC.

7.2 Project Review Meetings

A schedule for project review meetings and the composition of the project steering committee shall be described in the project work statement. This is important to allow the contractor to properly estimate his project costs and to clarify the planned project management procedures for all involved.

7.3 (Examples of other special instructions would include: limits on parameters to be investigated, consultation on decisions, adherence to special conditions.)

8. PROJECT ADMINISTRATION

The Executive Director, Transportation Development Centre (TDC) will appoint a Project Officer to manage the project on behalf of TDC. A committee (steering, progress review or technical monitoring) may be convened at the invitation of TDC to counsel the Project Officer, to monitor progress and comment as necessary on the envisaged work to be done. (State any other responsibilities of the TDC Project Officer as well as those of performing organization's staff and others involved in performing, managing and reviewing work.)

Contract administration will be provided by Supply and Services Canada (DSS), (if a DSS contract).

9. PROJECT CONTROL

The project shall be controlled by a CPM, PERT, SPEC or equivalent responsibility assignment and scheduling method. Budgets for each project element should be prepared at the start of the project and monitored regularly to ensure resources available are compatible with estimates to complete the work. (The requirements listed herein should be in proportion to the complexity of the project.)

10. REPORTING REQUIREMENTS

10.1 Progress Reports

To facilitate the management of the project, a minimum of three (3) copies (or as mutually agreed upon), of the progress reports shall be submitted on a (monthly/bimonthly) basis to the TDC Project Officer (with a copy to the DSS Science Procurement Manager, if a DSS contract). These reports shall be short and concise, not exceeding two typewritten pages.

/3...

The format of the progress report should be as follows:

10.1.1 A list of all persons actively working on the project and their functions.

10.1.2 Current status of work, containing an estimate of the percentage of work completed, the percentage of time elapsed, and a clear statement as to whether the project will or will not be completed within the established schedule and the agreed financial limitation.

10.1.3 Work accomplished since the period last reported.

10.1.4 Problem areas, if any.

10.1.5 Work to be addressed and expected to be achieved in the coming months.

10.1.6 Any action required by TDC.

10.1.7 Contact made with outside agencies or companies, or major visits planned in connection with the project. During the term of the project, the contractor is required to identify and record names and addresses of individuals (organizations) to be used to disseminate information at the end of the contract.

10.1.8 Special reporting requirements in May: For contracts that have expended more than 25% of their funds, contractors are required to deliver in the progress report for May a 500 word summary of performance in the previous fiscal year. Topics should include origin, objectives, methodology, results to date, and any outstanding achievements. Photographic and other suitable illustrative material may also be included.

10.1.9 Other important information deemed to be appropriate.

10.2 Publication Requirements

10.2.1 The final technical report(s) (ADD if applicable: the interim report(s) and the summary report(s)) shall be prepared in accordance with the "TDC Publication Standards and Guidelines for Contractors (TP 929)", the latest issue to be provided to the contractor by (the DSS Science Procurement Manager or TDC Finance)* at the contract negotiation stage.

*Note: for DSS contracts, type "DSS Science Procurement Manager". For letter, service and DOT contracts, and for intra and interdepartmental agreements and agreements with other levels of government, type "TDC Finance".

10.2.2 Contractors are expected to be thoroughly familiar with TP 929. The report(s) is(are) subject to review by TDC, for content and adherence to TP 929.

10.2.3 The report(s) must include a summary, either as an executive summary section in the report or as a separate document (see TP 929, section 3.7).

10.2.4 The report(s) must include a Report Documentation Form in both official languages (see TP 929, section 3.4 and Appendix A). Blank forms will be supplied by TDC.

10.2.5 S.I. metric units shall be used in the report(s). (Unless special exception is warranted.)

/4...

10.3 Delivery Schedule of Reports

10.3.1 The schedule for the submission of the report(s) by the contractor and response by TDC shall be:

a) The contractor shall provide 5 copies of the draft of the final technical report (ADD if applicable: interim report(s), and summary report(s)) (x) weeks/months after contract signing date.

b) TDC will provide technical and editorial comments on the draft report(s) to contractor (y) weeks/months after receipt. (ADD if applicable: TDC will provide translations of the Report Documentation Form and the summary).

c) The contractor shall provide (*) copies of printed reports (z) weeks/months after receipt of TDC's comments. (Specify ratio of English:French in the case of summary reports).

d) The contractor is responsible for delivery of a camera-ready master/artwork (for further reproduction of the report) along with the printed reports.

* Project Officers are to refer to Appendix 4-9 before establishing the number of reports required from a contractor. The minimum number needed for internal purposes alone is 25.

10.3.2 For control purposes, all reports, except progress reports, shall be delivered to:

Office Services Supervisor,
Transportation Development Centre,
Transport Canada,
Guy-Favreau Complex,
200 Dorchester Blvd West,
Suite 601, West Tower,
Montreal, Quebec,
H2Z 1X4

The Records Office will ensure that copies are forwarded to the Project officer.

11. DISPOSAL OF SOFTWARE AND HARDWARE

11.1 Prepare and submit to TDC a list of all equipment, material and supplies procured under the contract, as well as prototype equipment or systems constructed under the contract. This list shall be forwarded to TDC along with the draft technical report.

11.2 All equipment procured or constructed during the contract shall be delivered to TDC or disposed of as directed by TDC at the completion of work.

11.3 All software licences procured during the contract shall be transferred to TDC at the completion of work unless otherwise agreed to; the arrangements necessary to accomplish this transfer shall be made with the licensee at the time of purchase.

Supply and Services Canada — Approvisionnements et Services Canada

TO / A: DGS/MAS

Supply and Services Canada,
800 Gulf Road,
Hull, Quebec.
H3E 1G9

FOR AMENDMENT ONLY - AUX FINS DE MODIFICATION SEULE

$ 175,000.

T8200

PAGE 1 OF 3

Transport Canada

Barry B. Myers - Tel.: (514) 283-0054

Transportation Development Centre (TDC)
Complex Guy Favreau
200 Dorchester Blvd West
West Tower, Suite 601
Montreal, Quebec. H2Z 1X4

File D 1455-177/Proj. 6706-07-08

Transportation Development Centre (TDC)
same address as above
Attention: Supervisor, Records Office

AIS COMPUTER GRAPHICS PILOT DEMONSTRATION 30 06 87 T8200 $175,000.00

1. **REQUISITION ITEM**

It is requested that a directed contract be awarded to Virtual Prototypes Inc., 5525 de Maisonneuve West, Suite 318 Montreal, Quebec H3X 3Y1, to develop a computer basedsystem for designing, modifying and evaluating airways and approaches to airports using animated graphics.

Canada

2. SELECTION OF CONTRACTOR

The choice of Virtual Prototypes Inc. is made on the following bases:
a) a unique software capability in 3-D animated graphics design;
b) increasing expertise under an existing defence contract; and
c) willingness to contribute development effort to the project.

3. WORK STATEMENT

The work statement as Appendix "A" describes the objectives and the scope of the work to be undertaken, reporting requirements and deliverables, and shall form the basis for negotiation of a mutually agreeable contract.

4. TYPE OF CONTRACT

Based on the scope of work it is envisaged that progress payments shall be made to the contractor up to the financial limitation of $175,000.00 as specified in Appendix "B" . The work is divided into three major phases; Phase II shall not be authorized until Phase I has been accepted by TDC. Upon award of a contract against this requisition any funds remaining are automatically withdrawn.

5. ESTIMATED COST BREAKDOWN

The estimated cost breakdown for the work included within the scope of the contract is attached as Appendix "B".

6. METHOD OF PAYMENT

It is requested that progress payments be made as work is done, up to 90% of the total contract amount. All amounts retained as holdback, and which can be deemed to be earned on the basis of work accomplished, including profit, fee, CVA, etc., are requested to be included in each invoice, with any amounts to be retained as holdback being so designated and subtracted from the progress payments.

ITEM ARTICLE	REFERENCE - STOCK NO. AND DESCRIPTION - N° DE REFERENCE / N° DE NOMENCLATURE ET DESCRIPTION	DATE REQUIRED DEMANDE POUR LE	CONSIGNEE CODE CODE DU DESTINATAIRE	QUANTITY QUANTITE	ESTIMATED COST PRIX ESTIMATIF	PREVIOUS QUANTITY AND UNIT PRICE QUANTITE ET PRIX UNITAIRE PRECEDENTS	PREVIOUS CONTRACT NO. AND DATE DATE ET N° DU CONTRAT PRECEDENT

7. SUMMARY REPORT TRANSLATION

Cost of summary report translation should be listed by the contractor as a separate item, showing cost derivation. If the Contractor is unable to provide a summary report in the other official language, please advise TDC so that alternative arrangements can be made.

8. REPLACEMENT OF PERSONNEL

The Contractor's Project Manager and key personnel - E.Joseph - shall not be replaced during the term of the contract without prior written approval of TDC.

9. CONTRACT NEGOTIATIONS

It is requested that TDC participate with DSS in negotiations with the contractor relating to the clarification of the work to be undertaken.

10. TDC REVIEW OF CONTRACT

It is requested that a copy of the contract be submitted to TDC for review and approval before being transmitted to the contractor. This is to be done by routing a copy of the final proof to TDC. The printing and distribution should be withheld subject to TDC agreement on the content of the contract in its final form.

11. ATTACHMENTS

Appendix "A"- Work Statement
Appendix "B"- Estimated Cost Breakdown

APPENDIX "A"

TRANSPORTATION DEVELOPMENT CENTRE

WORK STATEMENT

AIS COMPUTER GRAPHICS PILOT DEMONSTRATION

(April 24, 1986)

1. INTRODUCTION

Aircraft fly on predetermined finite flight-paths from take-off to landing; these flight-paths are designed based on criteria which specify the method, allowable tolerances, units of measurement and accuracies for various phases of an aircraft's itinerary. The designs are prepared manually using topographical charts of various scales, templates, aerodrome site plans and other aeronautical information publications.

The number of flight-paths is increasing and becoming more varied due to the introduction of new and different navigational facilities; therefore a pilot project is being undertaken to determine whether the application of computer aided design to the preparation of these flight-paths is realistic or cost-effective, and if it is, what type of system could and should be implemented.

The pilot system will comprise both software and hardware and will enable an unsophisticated computer user to design interactively a hypothetical airway and an instrument approach path in a 3-D environment within airspace not exceeding 400nm in length or width and up to 60,000 ft in altitude. Output will be a 3-D graphic display which can be translated and rotated with perspective; computer response time will be fast enough to provide animated imagery on a high resolution diplay. TDC will supply all necessary digitized terrain data and design criteria. The project will culminate in a pilot demonstration system for training Aeronautical Information Services personnel in the design development and modification of airways and approach paths.

2. MODAL OBJECTIVE

To develop expertise, techniques and equipment in support of airways services for the improvement of safety, efficiency and productivity in Canadian air operations.

3. MODAL SUB-OBJECTIVE

To improve the processing of acquired data and generation of control decisions.

4. PROJECT OBJECTIVE

To develop a computer-based system which will provide a method for designing, modifying and evaluating airways and instrument approaches based on existing design criteria, and which will also be capable of simulating aircraft operation under new criteria required for the next generation of navigation aids.

5. DETAILED STATEMENT OF WORK

The work comprising this project shall include the following:

5.1 Develop a detailed work plan, activity schedule,cash flow projection, project management control and documentation procedures (as specified in Section 8,"Project Control") within four weeks of effective commencement date, confirming task priorities, suggesting hardware and software suppliers, broadly identifying data needs and defining the roles of subcontractors, and submit to TDC for review and approval.

5.2 Collect relevant information covering user requirements including all design criteria for airways and approach paths and relevant mapping data.

5.3 Develop the design approach for a computer-based system for designing, in three dimensions:

a) an airway between two hypothetical navaids;
b) a non-precision instrument approach to a hypothetical airport.

5.4 Select hardware components for the system, including processing unit, input devices, memory for the specified terrain data, high resolution colour CRT displays, a printer, system and operating manuals, and description of all embedded software; availability of spares maintenance and service in Canada must be assured.

5.5 Develop a digital terrain model (DTM) including surface elevation, obstructions and navigation facilities, along with the ability to manipulate the data in three dimensions; there will be the need to store data to cover up to one sixth the area of Canada.

5.6 Develop software to integrate the DTM with the airways and approach path design criteria and to provide three dimensional geometric representation viewable from any angle and location.

5.7 Design an airway and approach path based on the specific data provided by TDC and demonstrate the use of the system interactively to provide animated and smoothly perceived motion simulating flight on the designed paths; the demonstration shall illustrate the facility to change the location of navaids, the location and heights of obstructions; and todesign new airways or approach paths to the required accuracies.

5.8 Deliver the pilot system with documentation and reports along with hardware and software support for a period of two years following delivery date.

5.9 Provide training for two persons in Ottawa utilizing the delivered system.

5.10 Prepare and deliver to TDC visual material as specified in Section 9, "Information Dissemination and the requisite numbers of technical and summary reports describing the work carried out and submitted for approval in accordance with Section 10, "Reporting Requirements.

6. PROJECT ADMINISTRATION

The Executive Director, Transportation Development Centre (TDC) will appoint a Project Officer to manage the project on behalf of TDC. A progress review committee may be convened at the invitation of TDC to counsel the Project Officer, to monitor progress and comment as necessary on the work to be done. A representative of the Office of Primary Interest (OPI) within Transport Canada will be invited to participate in this committee.

7. ROLE OF OTHER PARTIES

Aeronautical Information Services of Transport Canada, the OPI for this project, will undertake, by agreement with TDC, provide support to the contractor on a continual basis during the conduct of the work in the following areas:

7.1 digital terrain and other mapping data required;

7.2 airways and approach path criteria and interpretation

7.3 other related technical matters.

8. PROJECT CONTROL

The project shall be controlled by a CPM, PERT, SPEC or equivalent responsability assignment and scheduling method. Budgets for each project element should be prepared at the start of the project and monitored regularly to ensure resources available are compatible with estimates to complete the work.

9. SPECIAL INSTRUCTIONS

9.1 Information Dissemination

9.1.1 Credit for TDC Support

Contractors are encouraged to publicize their research: however all publicity is to be coordinated with the TDC Project Officer, and credits are to be given to TDC involvement, giving particular care to the spelling of "Transportation Development Centre".

9.1.2 Illustrative Deliverables

Suitable opportunities for visual material creation should be sought during the course of the contract. Slides, photographs and/or drawings, illustrating the concepts and technical equipment being developed or tested. Illustrative material of professional quality shall be delivered to TDC in January and June, or as determined by the TDC Project Officer.

9.1.3 Presentation Materials Deliverables

At the conclusion of the work, and no later than the submission of the final reports, present to TDC a slide and/or videotaped presentation on the work carried out and on results achieved is to be delivered to TDC.

9.2 Project Review Meetings

There will be at least four review committee meetings during the life of this contract.

10. REPORTING REQUIREMENTS

10.1 Progress Reports

To facilitate the management of the project, a minimum of three copies of the progress reports shall be submitted on a monthly basis to the TDC Project Officer with a copy to the DSS Science Procurement Manager. These reports shall be short and concise, not exceeding two typewritten pages.

The format of the progress report should be as follows:

10.1.1 A list of all persons actively engaged on the project and their functions.

10.1.2 Current status of the work, containing:

a) an estimate of the percentage of work completed,

b) the percentage of time elapsed, and

c) whether the project will be completed within the established schedule and the agreed financial limitation;

10.1.3 Work accomplished since the period last reported;

10.1.4 Problem areas;

10.1.5 Work to be addressed in the coming months;

10.1.6 Action required to be undertaken by TDC;

10.1.7 Contact made with outside agencies or companies, or major visits planned in connection with the project.The contractor is required to identify and record names and addresses of individuals or organizations. Such names may be use to disseminate information at the end of the contract.

10.1.8 Special reporting requirements in May:
For contracts that have expended more than 25% of their funds, contractors are required to deliver in the progress report for May a 500 word summary of performance in the previous fiscal year. Topics should include origin, objectives, methodology, results to date, and any outstanding achievements. Photographic and other suitable illustrative material may also be included.

10.2 Publication Standards

All reports with the exception or progress reports and interim reports shall be prepared for publication in accordance with the "TDC Publication Standards and Guidelines for Contractors (TP 929)",(the latest issue to be provided to the contractor by the DSS Science Procurement Manager at the contract negociation stage) and are thus subject to the following requirements :

10.2.1 reports will be assigned a TP number by TDC;

10.2.2 metric units (S.I.) shall be used in all reports (Unless special exception is warranted);

10.2.3 reports shall be prepared in English or French;

10.2.4 reports must include a summary in English and French, either as a section in the report or as a separate document (see TP 929, section 3.7);

10.2.5 a bilingual Report Documentation Form (RDF) shall be included in every report as specified in TP 929, Section 3.4. Blank forms (see TP 929, Appendix A) will be supplied by TDC ;

10.2.6 translation shall be provided in the case of :
a) the RDF by TDC / the contractor;
b) the summary by TDC / the contractor;
c) the report by TDC / the contractor;

10.3 Publication Schedule

10.3.1 Reports shall be submitted in accordance with the following:

a) 5 copies each of:
-draft reports (English or French)
-Report Documentation Form (English and French)
delivered (12) months after contract signing date;

b) TDC comments on draft reports to contractor within not more than (4) weeks after receipt.

* c) ### copies of summary reports :
* -## in English
* -## in French
delivered (4) weeks after receipt of TDC's comments
* d) ## copies of final published reports
* -## in English
* -## in French
delivered (4) weeks after receipt of TDC's comments.

10.3.2 For control purposes, all reports, except progress reports, shall be delivered to:

Office Services Supervisor
Transportation Development Centre
200 Dorchester Blvd West
Suite 601, West Tower
Montreal, Quebec
H2Z 1X4

11. DISPOSAL OF SOFTWARE AND HARDWARE

11.1 Prepare and submit to TDC a list of all equipment, material and supplies procured under the contract, as well as prototype equipment or systems constructed under the contract. This list shall be forwarded to TDC along with the draft technical report.

11.2 All equipment procured or constructed during the contract shall be delivered to TDC or disposed of as directed by TDC at the completion of work.

11.3 All software licences procured during the contract shall be transferred to TDC at the completion of work unless otherwise agreed to;the arrangements necessary to accomplish this transfer shall be made with the licensee at the time of purchas

12. SPECIAL INSTRUCTIONS

All items marked "*" contain values that are to be determined.

APPENDIX "B"

TRANSPORTATION DEVELOPMENT CENTRE

AIS COMPUTER GRAPHICS PILOT DEMONSTRATION

ESTIMATED COST BREAKDOWN

(April 24, 1986)

1. LABOUR

(Based on a combined rate of $300.00 per day)

		$
Phase I : Tasks 5.1-5.2	80 days	24,000
Phase II : Tasks 5.2-5.7	470 days	141,000
Phase III: Tasks 5.8-5.10	50 days	15,000
		167,000

2. MATERIALS & SUPPLIES	59,000
3. TRAVEL & LIVING	5,000
4. LESS : Company contribution of => 30% of labour	(56,000)
TOTAL CONTRACT COST TO TDC	$175,000

Transports Canada
Centre de développement des transports
Complexe Guy-Favreau
200 ouest, boul. Dorchester
Suite 601, tour ouest
Montréal, Québec H2Z 1X4
Télex: 05-24713
Tél.: (514) 283-0000

Transport Canada
Transportation Development Centre
Guy Favreau Complex
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4
Telex: 05-24713
Tel.: (514) 283-0000

Votre référence / Your file

Notre référence / Our file
(File Number)
(Project Number)

(Date)

Mr. John Doe
(Title)
ABC Organization
1234 Main Street
Any Town, Canada

Dear Mr. Doe:

Subject: (Project Title)

This letter constitutes a(n) (cost sharing) agreement between (name of organization) and the Transportation Development Centre (TDC) for (describe project briefly).

The terms of the agreement are as follows:

1. The agreement is based on the Work Statement attached as Appendix "A".

2. The estimated project duration is (x) months/years commencing in (date) and completing in (date).

3. The total cost of the project is estimated to be ($x) as detailed in Appendix "B". The (name of organization) agrees to pay ($x) toward the cost of the project. TDC is responsible for providing or obtaining the balance of the funds.

4. Costs will be journalized on a quarterly* basis. Journal vouchers covering costs for work carried out in each fiscal year shall be delivered to TDC during the corresponding fiscal year. For details regarding arrangements for payment, please contact Mr. A. Sidhom, Manager, Financial Services, TDC, telephone number (514) 283-0008.

5. The project officer responsible for this project on behalf of TDC is (type name) and is the individual to whom all matters relating to the substance of the work should be referred.

*This is the normal method of payment. Other arrangements are acceptable through agreement in advance with the TDC Finance Officer.

. . /2

6. The officer responsible for this project on behalf of (name of organization) is (name of individual) who will be consulted regarding the work and will participate in the project as a member of the Project Steering Committee. (Name of individual) will be advised of progress on a monthly basis and will be informed of the project results.

7. (Any special conditions or requirements that are peculiar to this agreement should be included herein.)

8. Provision of reports to TDC shall be as detailed in Section (n) of the Work Statement.

9. This agreement can be amended only upon mutual consent of the delegated (name of organization) and TDC signatories.

If you are in agreement with the foregoing terms, would you please signify your acceptance as of the date of this letter by signing both copies of the letter and returning one to Mr. A. Sidhom, Manager Financial Services, TDC.

Yours very truly,

N.E. Rudback
Executive Director

Accepted: _____

(name and title of signatory)
(name of organization)

Date: _____

Transports Canada
Transport Canada

Centre de développement des transports
Transportation Development Centre

Complexe Guy-Favreau
200 ouest, boul. Dorchester
Suite 601, tour ouest
Montreal, Québec H2Z 1X4
Télex: 05-24713
Tél.: (514) 283-0000

Guy Favreau Complex
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4
Telex: 05-24713
Tel: (514) 283-0000

INTER-DEPARTMENTAL AGREEMENT

Votre référence *Your file*

Notre référence *Our file*
D1460-255
Project No. 6973

August 20, 1987

Mr. C. Norris
Industrial Liaison Officer
Institute of Marine Dynamics
National Research Council of Canada
P.O. Box 12093, Station "A"
St. John's, Newfoundland
A1B 3T5

Dear Mr. Norris:

Re: Icebreaker Midbody Resistance

This letter constitutes a cost sharing agreement between the Institute of Marine Dynamics (IMD) and the Transportation Development Centre (TDC) for a project to examine the influence of parallel midbody on the resistance of icebreaking ships to be undertaken by Melville Shipping Limited and using the M.V. Arctic 1:30 scale model and the testing facilities of IMD.

The terms of the agreement are as follows:

1. The agreement is based on the Work Statement attached as Appendix "A".

2. The estimated project duration is 6 months commencing in September 1987 and completing in March 31, 1988.

3. The total cost of the project is estimated to be $119,794 as detailed in Appendix "B". IMD agrees to pay $35,000 toward the cost of the project. TDC is responsible for providing or obtaining the balance of the funds.

4. Costs will be journalized on a quarterly basis. Journal vouchers covering costs for work carried out in each fiscal year shall be delivered to TDC during the corresponding fiscal year. For details regarding arrangements for payment, please contact Mr. A. Sidhom, Manager, Financial Services, TDC, telephone number (514) 283-0008.

.../2

5. The project officer responsible for this project on behalf of TDC is Mr. Thomas H. Peirce and is the individual to whom all matters relating to the substance of the work should be referred.

6. The officer responsible for this project on behalf of IMD is Dr. Mary Williams who will be consulted regarding the work and will participate in the project as a member of the Project Review Committee. Dr. Williams will be advised of progress on a monthly basis and will be informed of the project results.

7. Provision of reports to TDC shall be detailed in Section 11.3 of the Work Statement.

8. This agreement can be amended only upon mutual consent of the delegated IMD and TDC signatories.

If you are in agreement with the foregoing terms, would you please signify your acceptance as of the date of this letter by signing both copies of the letter and returning one to Mr. A. Sidhom, Manager, Financial Services, TDC.

Yours very truly,

For/

N.E. Rudback
Executive Director

NER/TP/gk

Accepted: _____
Mr. C. Norris, Industrial Liaison Officer
Institute of Marine Dynamics

Date: 5/9/87

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / À: ALL TDC STAFF

FROM / DE: N.E. Rudback - EDTDC

SECURITY - CLASSIFICATION - DE SÉCURITÉ	
OUR FILE — N / RÉFÉRENCE	D 1664-1
YOUR FILE — V / RÉFÉRENCE	
DATE	25/11/85

SUBJECT / OBJET: **LANGUAGE POLICY AND PROCEDURES FOR TDC PUBLICATIONS**

1. **Purpose**

To clarify the application of Transport Canada language policy with respect to research reports and other publications prepared by or for TDC.

2. **Background**

The Transport Canada language policy for publications is set out in the DM Circular 84-04700-53 (TP 100), and subject to TB Circular 1982-58. As defined by departmental policy, publications prepared by or for TDC fall into one of two general categories:

2.1 **Publications of general distribution** - documents which are widely accessible and normally distributed to various specialized clients of Transport Canada.

2.2 **Publications of limited distribution** - documents to which the public may have access but which are not prepared for general publication and distribution (research reports concerning highly specialized topics).

3. **Language of Submission**

All reports shall be prepared in the first official language of the contractor.

4. **Language of Publication**

In accordance with the policy of the Treasury Board of Canada concerning language requirements for scientific and technical publications, all TDC reports will be published in both official languages where significant demand exists or when publications of limited distribution will be used on a long-term basis. The threshold of significant demand is fixed at 5% of total demand*. TDC will estimate this demand and determine language requirements prior to contract signing as follows.

/2...

* Criteria developed by Treasury Board

4.1 **Publications of general distribution** - publications that are intended to transfer scientific or technical knowledge or information to the general public in lay language: examples are the Project Directory, Annual Report, exhibitions, handouts, brochures and other general information. Such documents will be prepared and distributed simultaneously in both official languages.

4.2 **Publications of limited distribution** - publications that describe the results of and/or interpret research in scientific or technical fields for the information of specialized public. These are generally produced for limited distribution to a small specialist public that may or may not warrant publication in the two official languages. This is the case for the majority of TDC's contracted reports. The decision whether or not to translate such documents will be determined on the basis of expected length of usage and demand in the other official language, as follows:

4.2.1 Publications of limited distribution to be used on a long-term basis - e.g. design standards, manuals, will be produced simultaneously in both official languages.

4.2.2 Publications of limited distribution and short-term use - e.g. design of a rail passenger seat, analysis of air cushion vehicle test results, will be produced in the language of the contractor. All such publications will include a bilingual summary either in the body of the report, or as a separate document.

5. Summaries and Summary Reports

The abstract in the Report Documentation Form is not a sufficient summary in the second language. TDC requirements for summaries are set out in TP 929, section 3.7. Summaries exceeding 10 pages and special interest summaries are to be published as separate reports in a bilingual format.

6. Translation

TDC encourages contractors to provide translations of report documentation forms, and where determined necessary, of summaries.

The cost of translation and/or of publication in the other official language will be discussed during contract negotiation.

If the contractor is unable to provide the translation and produce the report in the other official language, TDC will arrange for translation and/or publication.

N.E. Rudback

N.E. Rudback

TS/jv

GUIDELINES FOR SOLE SOURCING*

Justifying circumstances frequently encountered are as follows:

(a) a specified proprietary product is required for reasons of logistics, where the introduction of a non-standard item would cause operating difficulties or extra costs in maintenance;

** (b) a monopoly of the technology essential to the procurement is held by one firm because of a patent or licensing position, previous specialized experience or unique machinery and equipment in position to commence operation;

** (c) there is clearly only one qualified firm available when all factors and pertinent policies are taken into account;

(d) the conservation of a particular source is necessary to ensure the fulfillment of future needs of government;

(e) the work is one of pressing emergency in which delay would be injurious to the public interest.

* For small contracts (less than $30,000) the level of justification is less than for higher value contracts. This does not apply for initial contracts of multi-phase projects.

** These are the most common reasons used by TDC. With respect to (c) it is important that the company has a unique capability, that is, it is the only company capable of doing the work because of its facilities, expertise, combination of expertise or for other reasons. A substantial cost sharing contribution by the company may also help to make it unique if such cost sharing is not available from another source.

Transports Canada
Centre de développement des transports
1000 o., rue Sherbrooke
Suite 2421
Montréal, Québec. H3A 2R3
Télex 05-24713

Transport Canada
Transportation Development Centre
1000 Sherbrooke St. W.
Suite 2421
Montreal, Quebec. H3A 2R3
Telex 05-24713

Votre référence Your file

Notre référence Our file
D1450-103-67-3

March 19, 1985

Mr. Gregory R. Latham
Manager of Services
Transportation Department
City of Edmonton
10th Floor, Century Place
9803-102nd A. Avenu
Edmonton, Alberta
T5J 3A3

Dear Mr. Latham:

Re: TDC - City of Edmonton Computerized Dispatching & Brokerage Demonstration Project

I am enclosing for your review and execution, two copies of an Agreement establishing the arrangements which will govern the contribution of funds by the Transportation Development Centre to the City of Edmonton during the 1984-85 and 1985-86 fiscal years.

It is our hope that this will assist the City of Edmonton to design, define and plan a computerized dispatching and brokerage demonstration which will improve transit services to the disabled. It is understood that the City of Edmonton will contribute ten thousand dollars ($10,000) of in-kind services. In this regard, we look forward to this cooperative effort which has characterized our joint activities.

If the attached agreement is acceptable to you, would you kindly sign both copies and return the original at your earliest convenience.

Yours truly,

ORIGINAL SIGNÉ PAR
ORIGINAL SIGNED BY
N.E. RUDBACK

N.E. Rudback
Executive Director

BAS/gk

Enclosures:

Canada

APPENDIX A.8

Transports Canada
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1000 o., rue Sherbrooke
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Transport Canada
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Telex 05-24713

Votre référence Your file

Notre référence Our file
D1450-103-67-3

CONTRIBUTION AGREEMENT

This letter constitutes an agreement made, in duplicate, this nineteenth day of March, 1985.

Between

The City of Edmonton, Province of Alberta,

(called City of Edmonton) of the FIRST PART

a n d

HER MAJESTY THE QUEEN IN RIGHT OF CANADA as represented by the Executive Director, Transportation Development Centre

of the SECOND PART

This agreement states that in consideration of the terms and conditions outlined here, the Parties agree as follows:

1. The City of Edmonton shall carry out the design, definition and planning of a computerized dispatching and brokerage demonstration to improve transit services to the disabled in Edmonton.

2. (1) Subject to 2 (2), the Transportation Development Centre shall, during the 1984/85 and the 1985/86 fiscal years, contribute an amount representing the direct costs of this research activity, the sum of twenty-three thousand dollars ($23,000).

   (2) Funds contributed in accordance with this agreement are to be used solely to support the City of Edmonton's activities associated with the design, definition and planning of this work.

.../2

3. The City of Edmonton shall keep proper accounts of all expenditures and the invoices, receipts and vouchers relating thereto, and such accounts and records shall be open to audit and inspection by an authorized representative of the Canadian Government at all times.

4. The method of payment shall be a payment of **eleven thousand one hundred and twenty dollars ($11,120)** upon signing of this agreement in the FY 84/85 and a second and final payment of **eleven thousand eight hundred and eighty dollars ($11,880)** upon completion and delivery of the work to TDC in the FY 85/86. Receipt of the project accounting by Mr. A. Sidhom, Chief, Finance and MIS, TDC is also required before the final payment of the contribution is made to the City of Edmonton.

5. If at any time during the course of this agreement, both Parties deem it necessary or expedient to make any alteration or addition to this agreement, they may do so by means of a written agreement between them which shall be supplemental to and form a part thereof.

If you are in agreement with the terms and conditions above, would you kindly signify your acceptance by signing both copies and returning the original to the undersigned.

) Executed on behalf of the
) City of Edmonton by its proper
) officer duly authorized in that
) behalf.
)
)
) _____
)
)
) for Transportation Development Centre
)
)
) ORIGINAL SIGNÉ PAR
) ORIGINAL SIGNED BY
) N.E. RUDBACK
)

COPIES OF REPORT REQUIRED FROM CONTRACTOR

When completing the Work Statement for a DSS Requisition for contract, TDC Project Officers are required to specify the number of copies of each report that the contractor is to deliver.

For internal purposes a minimum of 25 copies each of the main and any summary reports produced, are required.

When a TDC project has been sponsored by an external organization e.g. Energy R&D Program, an additional 12 copies of reports should be specified for distribution to each sponsor.

The TDC Library maintains a computerized mailing list of addressees coded by modal and research interests. The number of addressees who have indicated interest in TDC R&D projects should be included in the calculation of the number of reports to be provided by the contractor.

Project Officers should develop a dissemination strategy that includes the distribution of not only reports but, alternatively, copies of only the Report Documentation Form.

CHAPTER 5

PROJECT MONITORING PHASE

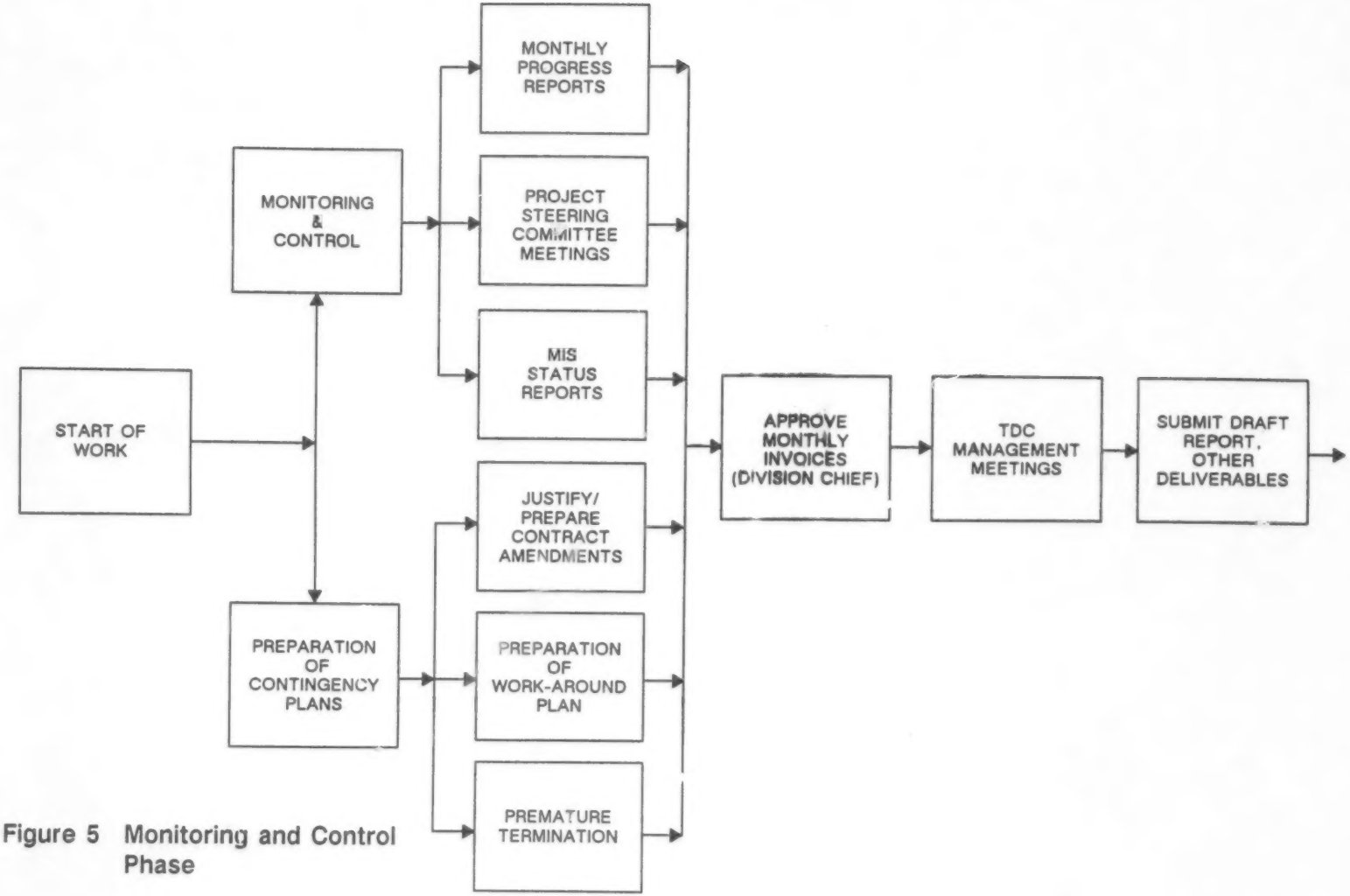

Figure 5 Monitoring and Control Phase

SCOPE

(see Figure 5)

This chapter describes the processes by which active projects are monitored within TDC and the various procedures involved. It includes:

- the process for establishing a project committee,
- the process for interfacing with the MIS to report periodically on a project,
- the process for dealing with patentable technology developed through project activity,
- the procedure for processing claims for payment from contractors,
- the processes for amending a contract,
- the processes for terminating a contract.

Termination of a contract occurs when work is stopped on a contract before it has been completed.

POLICY

Project Officers shall manage the projects and contracts in their portfolios in such a manner as to ensure the successful completion of them in accordance with the prescribed terms of cost, time and performance. Whenever the satisfactory performance of a contract is jeopardized, the responsible authorities shall take the necessary steps, first to serve and protect the interests of TC in meeting the terms of the contract, and second, to protect, where appropriate, the interests of other parties involved in the contract. When contract amendments are undertaken, the same care as that which precedes entry into the original contract shall be exercised.

BACKGROUND

There are a number of mechanisms available to assist Project Officers in the management of the many and diverse projects under their control: a project committee is formed to monitor contract performance, provide a forum for the exchange of views, and produce reports on the progress of complex projects; a computerized Project Management Information System administered by TDC Finance collects information from the Project Officers and subsequently provides TDC management with a monthly report on the status of each project as well as financial summaries on groups of projects; and, TDC Finance and SSC are available for consultation regarding contract terms and conditions.

PROCEDURES

NOTE: Immediately after a TDC project contract is signed, the Project Officer must meet with the contractor's team and project manager to confirm that this team is completely aware of the negotiated contract and its terms of reference.

5.10 PROJECT COMMITTEES

When developing a PJ, the Project Officer shall consider the requirements for forming a project committee to assist with various aspects of the project. This consideration is mentioned in the PJ under "METHOD OF IMPLEMENTATION". Some of the areas where committees can be of assistance to TDC Project Officers are:

- directing projects towards stated objectives,
- providing technical expertise and benefit of past experience,
- ensuring representation of other sponsor(s),
- exposing potential user groups to new developments,
- evaluating progress at key milestones,
- recommending modifications,
- analysing and interpreting results,
- disseminating information,
- suggesting follow-on and associated projects.

5.20 MANAGING PROJECT STEERING COMMITTEES

The term "project steering committee" is employed here in its broad sense. Other specific terms, such as "project technical committee", "project review committee", etc., may also be used.

A project steering committee is required for all major projects, tasked projects, projects cost-shared with other components of TC and for complex projects involving multiple participants.

The TDC Project Officer acts as chairman and provides the overall direction for the committee.

The Division Chief is a member of all steering committees for all projects undertaken within the Division. The Division Chief is to receive all steering committee correspondence and records of decisions. It is recognized that, due to time constraints, the Division Chief will not be able to attend all steering committee meetings.

A minimum of two project review or steering committee meetings shall be held for each project, regardless of whether or not a project steering committee is formed. One meeting is to be organized at the beginning of the project shortly after contract award to review the contractor's work plan and provide direction for the conduct of the work. A second meeting is required to present formally the principal technical deliverables to the Project Officer and the steering committee members. This meeting shall include a thorough discussion of the technical results and planned implementation, exploitation or follow-up activity.

For larger and more complex projects, meetings should be scheduled at all critical phases of the work (i.e. planning phase, requirements phase, design phase, testing phase, completion or demonstration phase). For small projects, telephone conference calls may satisfy the meeting requirements.

Responsibility	Action
Project Officer	1. Decide on the membership of the committee in consultation with the Division Chief; draw up a Project Committee Participation Request Letter (see Appendix 5-1) and Terms of Reference (see Appendix 5-2) for the committee.
	2. Issue the Project Committee Participation Request Letters and obtain acceptances.
	3. Invite steering committee members to meetings well in advance so that they have adequate time to schedule attendance. Provide them with a written agenda and other relevant documentation so that they can be fully prepared for the meeting.
	4. Prepare a Record of Decision form (see Appendix 5-11) during the meeting. Obtain signatures of all participants at the conclusion of the meeting. (In the case of telephone conference meetings a Record of Decision is still required. Mail the form to the other participants for signature.) Forward copies of the Record of Decision form to all those present at the meeting and to steering committee members who did not attend the meeting. Produce regular meeting minutes for major projects, and whenever considered appropriate for other projects. Organize the minutes in order of the agreed agenda and mail to all steering committee members early enough for comment before the next meeting. Include "action" responsibility items for follow-up by various committee members.
	5. Document every major project decision in writing to ensure: understanding of all interested parties; assignment of responsibility; future follow-up by others (if necessary), project transfer to another Project Officer, etc. Major decisions which require documentation include: changes, additions or deletions to the scope of work (changes to the scope of work can only be authorized by a contract amendment issued by the SSC Contracting Officer); selection of an option out of previously identified alternatives; any changes to agreed inputs from outside sources; contractual matters that involve SSC (e.g. potential cost overruns). If any of the above items are not documented in a record of decision or minutes of a project steering committee meeting, issue separate letters and send copies to all relevant parties.

5.30 OBTAINING CANADIAN PACIFIC CONSULTING SERVICES STRUCTURED PLANNING EVALUATION AND CONTROL (CPCS SPEC) SERVICES

Canadian Pacific Consulting Services (CPCS) are contracted from time to time to provide Structured Planning Evaluation and Control (CPCS SPEC) sessions for complex, multi-party TDC projects on an as-required basis. All requests for SPEC services are to be routed to Chief, Research Analysis and Special Programs for consideration and approval (see Appendices 5-3 and 5-4).

5.40 SPECIAL REPORTING

Each TDC Project Officer, as a Scientific Authority, is responsible to report fully on his projects when requested. Such internal reports may be required for: standard TDC documentation, e.g. Annual Review, Project Directory; meeting federal government reporting requirements, e.g. the Statistics Canada Science Addendum, Inventory of Federal/Provincial projects; or special purposes, e.g. listing of TDC R&D Achievements. Because this information is essential to maintain departmental and public awareness of TDC activities, and to communicate with TDC's clients and sponsors, TDC Project Officers and Division Chiefs are to give internal special reporting a high priority.

5.50 PERIODIC PROJECT ACTIVITY REPORTS

The MIS system used by TDC provides monthly reporting on a project necessary to assess project activities with respect to schedule, cost and performance (see the MIS Documentation Manual). It permits the Project Officer to assess project activities regularly and informs senior management of project status and existing or potential difficulties. The MIS is maintained by TDC Finance. The information it provides reflects data collected on a monthly basis from Project Officers.

Responsibility	Action
TDC Finance	1. On approximately the 23rd day of every month, provide the Project Officer with a Status Report update form for each project (see Appendix 5-5). The report reflects the status of each project at the end of the previous month.

Project Officer	2. Within three working days, update the information on the report to reflect the anticipated project status at the end of the current month (see Appendix 5-5).
	3. Forward updated reports to the Division Chief.
Division Chief	4. Review updated Status Reports and forward to TDC Finance.
TDC Finance	5. Within four working days enter new information, recorded on the Status Reports, into the MIS.
	6. Distribute monthly summary financial reports and graphs to the Division Chiefs, Modal Coordinators and TDC Funding Coordinators, as appropriate, during the first week of every month.
	7. Extract a separate print-out, in duplicate, of each tasked or endorsed Status Report by the fourth working day of the month. Forward these to the respective Modal Coordinators.
Modal Coordinator	8. Forward the tasked or endorsed Status Reports to the Administration tasking authority by the sixth working day of each month. Retain copy and file for future reference.

5.60 INVESTIGATING TECHNOLOGY PATENTS

Contractors must, under the standard terms of their contracts, disclose the discovery of technology which may be patentable. The SPM, as the contract authority, is responsible for the receipt of such disclosures from the contractor. TDC is the owner of the intellectual or industrial property disclosed. As TC does not have a component specifically charged with handling intellectual or industrial property, each component deals with such matters according to in-house procedures. TDC initiates patent exploitation through Canadian Patents and Development Ltd. (CPDL).

Responsibility	Action
Project Officer	1. Prepare a memorandum (see Appendix 5-6) from EDTDC to DGRD describing the nature of the technology, the particular circumstances of the contract (if any), and a summary of the request being made to CPDL. Advice on this subject should be sought from CPDL before any formal action is taken.
	2. Prepare a letter (see Appendix 5-7) from DGRD to CPDL in which administration and control of the Crown's rights to technology arising from the contract is transferred to CPDL.

	3. Prepare routing/action slip and forward documentation to Division Chief.
Division Chief	4. Comment as necessary and forward documentation to EDTDC.
EDTDC	5. Review and approve memorandum to DGRD and forward documentation to DGRD for approval and transmittal to CPDL.
Project Officer	6. Cooperate with the contractor, SSC and CPDL as necessary to ensure expedient handling of the property.

5.70 PROCESSING CLAIMS FOR PAYMENT

The format used by a contractor to claim for payment and the requirement for reporting on progress varies according to the terms of each contract. These requirements are defined in each contract and will have been agreed to by the Project Officer at the contracting stage of the project. Any anomalies in the claims are to be resolved by the Project Officer with the contractor.

Responsibility	Action
All TDC staff	1. Direct any claim for payment to Records Office.
Records Office	2. Date stamp claim, attach Claim for Payment routing/action slip (see Appendix 5-8), and forward to TDC Finance.
TDC Finance	3. Ensure that all rates and charges conform with the terms of the contract. Forward to Project Officer. **NOTE: When the total cost incurred to date exceeds 75 per cent of the total contract value, the Project Officer must confirm to TDC Finance that funds remaining are sufficient to complete the contract satisfactorily.**
Project Officer	4. Ensure that the quality and progress of the work is in accordance with the terms of the contract. Proceed as follows: — If claim is correct, sign routing/action slip to recommend payment and forward to Division Chief noting date required for return of claim to TDC Finance. — If claim is not correct, advise TDC Finance immediately to initiate the necessary procedures to ensure that the Crown is not open to interest claims.

— When required by TDC Finance confirm, in consultation with contractor, that funds remaining are adequate for project completion.

Division Chief

5. Review claim. Proceed as follows:
   — If claim is correct, sign to authorize payment and forward to TDC Finance,
   — If claim is not correct, advise TDC Finance immediately to initiate the necessary procedures to ensure that the Crown is not open to interest claims.

NOTE: Claims must be returned to TDC Finance within seven calendar days.

TDC Finance

6. Forward copy of claim to SSC for information or approval depending on the level of financing of the contract.

7. Process payment of claim.

5.80 AMENDING A CONTRACT

TDC recognizes that the outcome of an R&D project cannot always be predicted. However, the work effort to be expended to achieve a specific goal (report, prototype, test, decision milestone, etc.) can and should be planned, costed and controlled. TDC Project Officers are responsible for ensuring that the project objectives are achieved within the limitations of the budget and the work schedule established when the project was approved.

In general, when unforeseen problems are encountered, it is expected that "work around" plans will be developed to overcome the difficulties without exceeding the budget and, to the greatest extent possible, within the original schedule.

Major contract amendments that exceed the signing authority within TDC (see Appendix 2-6) or that have not been identified as a possibility during the planning stage of a project, require the same background information and approval routing as an APD/PAD or TB Submission (see Chapter 3). If a contract amendment appears necessary, appropriate action should be taken to obtain approval for the amendment at the earliest possible date. The Project Officer is expected to monitor the project costs and to take action even before the contract expenditures reach the 75 per cent level, if the SSC contract requires that the contractor provide notice of any potential cost overruns. Under no circumstances shall contractors be permitted to incur costs chargeable to TDC when the contract funds have been exhausted.

NOTE: Contract amendments that affect only the delivery date require only a letter from the Project Officer to SSC with a copy to TDC Finance and the Division Chief. In due course, the amended contract will be forwarded to the Project Officer from SSC through TDC Finance.

Responsibility	Action
Project Officer	1. Discuss amendment with contractor and obtain a submission outlining the reasons for, and estimated costs of, any amendment.
	2. Prepare a memorandum to EDTDC from the Division Chief justifying the need for the amendment (see Appendix 5-9). The memorandum must clearly indicate: — the reasons for contract amendment, — the project expenditures incurred up to the date the amendment is required, — a breakdown of the additional cost to complete the work as originally planned, with detailed explanation for each cost, and — a description and cost breakdown for any work not included in the scope of the contract, with a justification for the additional work.
	3. Prepare an SSC Requisition for a Contract Amendment (form SSC-ASC 9200, 1986) (see Appendix 5-10).
	4. Complete routing/action slip (see Appendix 4-3a), attach documentation and send to Division Chief for review.
Division Chief	5. Review the requisition and the memorandum justifying the amendment. If satisfactory, sign to indicate approval and forward to TDC Finance.
TDC Finance	6. Review and comment as necessary; amend financial codes and requisition.
	7. Send to EDTDC.
EDTDC	8. Sign to indicate approval and return to TDC Finance.
TDC Finance	9. Send requisition to SSC.
	10. Distribute copies of requisition. Return green copy to Project Officer.
SSC	11. Negotiate amendment with contractor.
	12. Send three copies of the amended contract to TDC.
TDC Finance	13. Send one copy of the amended contract to the Project Officer.

5.90 TERMINATING A CONTRACT

Responsibility	Action
Project Officer	1. Confirm the need for termination with Division Chief.
	2. Where there is a serious irregularity, potential cost overrun or major change in plans, immediately issue a stop-work order to the contractor through SSC. A stop-work order is considered as a requisition amendment and requires EDTDC signature.
	3. Discuss termination basis with contractor if termination is by mutual consent.
	4. Discuss termination basis with SSC.
	5. Prepare a memorandum from the Division Chief to EDTDC justifying the need for termination. The memorandum must clearly state: — the reasons for contract termination, — the project expenditures incurred up to the date of the termination, — the breakdown of additional costs expected as a result of the termination, — what results have been obtained from the work already done, — what action is planned to complete the project work.
	6. Prepare an SSC Requisition for Contract Termination presenting the case for termination including the items above.
	7. Use the AIP routing/action slip for project termination, attaching only required documentation (see Appendix 2-7a).
Division Chief	8. Review and, if satisfactory, sign to indicate approval and forward to EDTDC. If not satisfactory, return to Project Officer for revision.
EDTDC	9. Review and sign to indicate approval. Forward to TDC Finance.
TDC Finance	10. Review and send requisition to SSC.
	11. Distribute copies of requisition.
SSC	12. Negotiate termination with contractor.

	13. Advise TDC of the results of the negotiation.
TDC Finance	14. Advise the Project Officer of the contract termination.

SUPPLEMENTARY PROCEDURES

5.100 ACCESS TO TDC LIBRARY BY CONTRACTORS

Responsibility	Action
Project Officer	1. Advise contractors of the availability of the TDC library for computerized literature searches and as a reference resource.
	2. Encourage contractors to use the TDC facilities on an inter-library loan basis.
	3. Advise the TDC Librarian that a contractor wishes to use the library and arrange a meeting, if required, between the contractor and the TDC Librarian to review the project's reference needs.
TDC Library	4. Keep the Project Officer advised of outstanding loans against a project. Contract holdbacks are not released until the material is accounted for or returned.

CHAPTER 5
APPENDICES
PROJECT MONITORING PHASE

Appendix 5-1	Project Committee Participation Request Letter: Sample
Appendix 5-2	Terms of Reference of a Project Committee
Appendix 5-3	RAC Matrix (SPEC)
Appendix 5-4	Preliminary Network Plan (SPEC)
Appendix 5-5	MIS Monthly Status Report
Appendix 5-6	Memorandum to DGRD Requesting Transfer of Administration and Control of New Technology to CPDL: Sample
Appendix 5-7	Letter for DGRD to CPDL: Sample
Appendix 5-8	Claim for Payment: Routing/Action Slip
Appendix 5-9	Memorandum to EDTDC Justifying Contract Amendment: Sample
Appendix 5-10	Requisition for Contract Amendment: Sample
Appendix 5-11	Record of Decision: Sample

Transports Canada
Transport Canada

Centre de développement des transports
Transportation Development Centre

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200 ouest, boul. Dorchester
Suite 601, tour ouest
Montréal, Québec H2Z 1X4
Télex: 05-24713

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Votre référence Your file

Notre référence Our file

APPENDIX 5-1

Dear Sir:

The Transportation Development Centre (TDC) is funding the work by Douglas Ball Inc. of Ste-Anne-de-Bellevue, Quebec, to design, fabricate and test four prototype units of a multi-modal wheelchair restraint. The design is based on a concept previously developed by them in Phase 1 of a TDC-sponsored project.

In order to maximize the probability of achieving the project objectives, and to ensure that all relevant factors and concerns are taken into account, TDC is forming a Project Steering Committee composed of representative members sponsored by various organizations. The purpose of the Committee is to guide TDC and its project officer in the overall direction of the project by reviewing and analyzing the results being achieved. Recommendations will be expected from the Committee with regard to the project orientation, as deemed appropriate. Participation will be on a voluntary basis.

It is expected that the Committee will meet about three times during the project life which will end in early 1986. The first meeting has been tentatively set for August 15 when the project will be introduced and a report will be made on the progress to date including the display of a prototype unit. This meeting will provide a forum for questions and discussions.

In view of your interest in the subject matter, we would appreciate your participation as a member of the Committee.

Yours very truly,

Project Officer

Canada

Ferromagnetic Suspension Research Project

1. To advise the Transportation Development Centre (TDC) through the Project Steering Committee concerning the effective undertaking of the project so as to minimize the risks in achieving the project objectives.

2. To advise in the formulation of specific project objectives to ensure relevancy to problems faced by the industrial sector.

3. To share the researchers' experience to address the technical problems in the design, construction and commissioning of the test apparatus.

4. To assist in the analysis and interpretation of the test results.

5. To assist and advise in the project management and control process and reporting procedures.

6. To suggest follow-on and associated projects of a related nature that could form part of a Canadian research, development, test and demonstration program for transit vehicles having ferromagnetic suspension and linear induction motor systems.

RAC MATRIX

(Responsibility, Authority, Communications)

	TASKING OF PROJECT TO TDC	PROJECT FORMULATION	PREPARE INITIAL PERFORMANCE SPECS	NEGOTIATE & ISSUE INITIAL CONTRACT	INITIAL DESIGN MANUFACTURE & INSTALL SYSTEM	EVALUATE SYSTEM DESIGN	APPROVAL OF PLAN OF ACTION	NEGOTIATE AMENDED CONTRACT	SHIP'S TIME CONTRACT	COMPLETE SYSTEM DESIGN & ASSEMBLY OF MATERIALS	COMPLETE INSTALLATION & TESTS	INSTALLATION & CALIBRATION	COMPLETE ACCEPTANCE TEST PLAN	PREPARE & ISSUE DRAFT MANUALS	ACCEPTANCE TRIALS & MODIFICATIONS	FINAL REPORT PREP. & ACCEPTANCE	FINAL PAYMENT & EXECUTION OF CONTR.	FINAL REPORT TO CMTA
CANADIAN MARINE TRANSPORT ADMIN.	■	▲					△		▽		▲		△		△			■
TDC DIRECTOR-GENERAL	■	■	■	□			■	□	□							■	■	□
STEERING COMMITTEE				△	▼	△		△								□		▽
TDC PROJECT OFFICER		●	●	▼	▼	○		▼	▲	△	●	△	■	△	△	□	⊛	●
DSS SCIENCE PROCUREMENT			▲	● ■			▼	● ■	■ ●				△		△	▽	■	
GERMAN & MILNE (CONTRACTOR)			○	■	●	○	▲	■		●	▲	●	●	●	●	●		
GERMAN & MILNE SUB-CONTRACTORS					○						▲	○	▲	○		○		
SHIP OWNERS NORTHWATER NAVIGATION							△	△	■		▲ ▼				△			
NATIONAL RESEARCH COUNCIL		▼	▼		▼	●		▽			▲		▼	△	▼	▼		▽
ADVISORY COMMITTEE					▼			△										
ANTA/CANARCTIC									▽		▲							▽

14/2/79	JPG/VC
DATE	BY

LEGEND:

RESPONSIBILITY ○
- Prime Performance ●
- Limited Performance ○
- Coordination ⊛

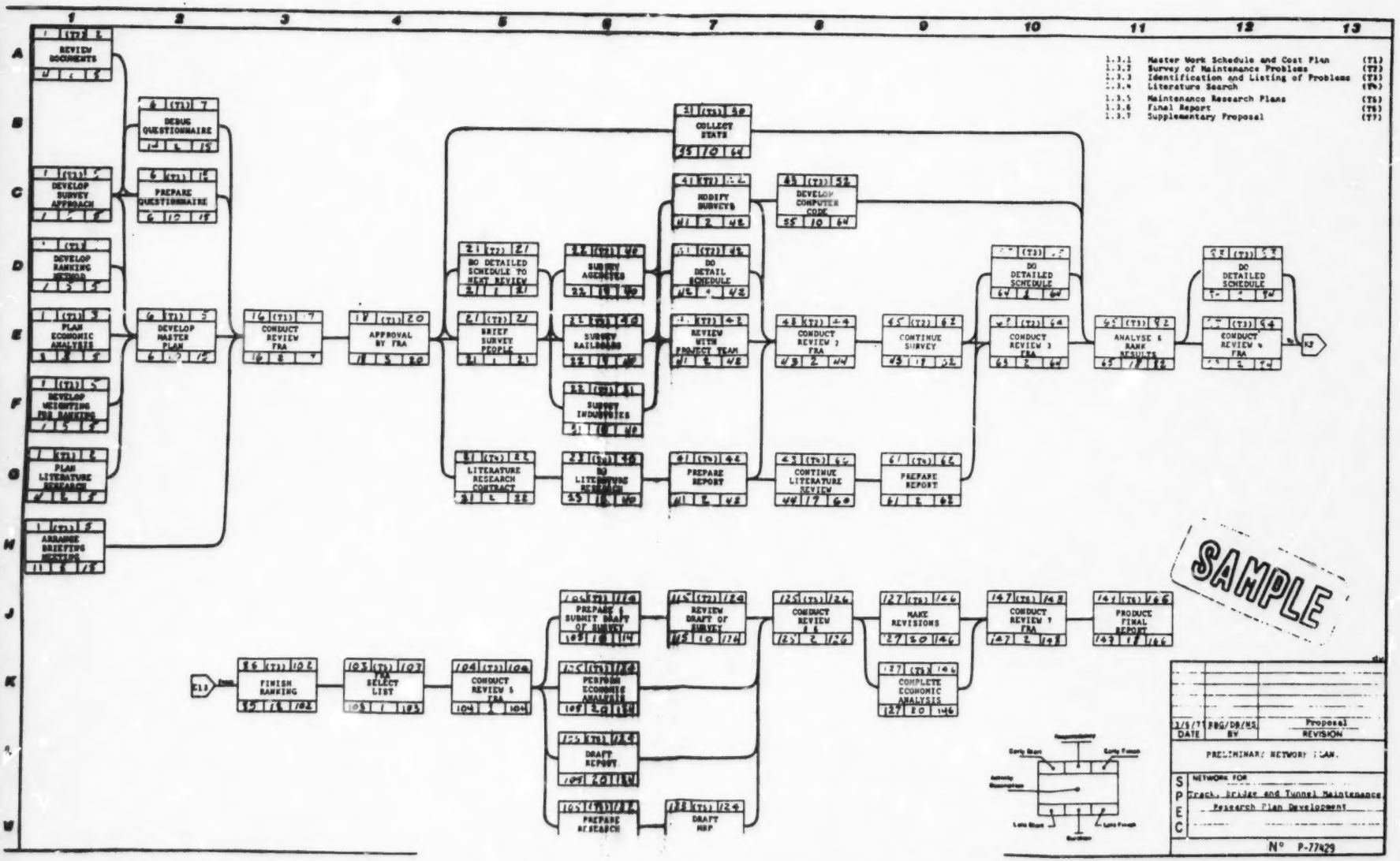
AUTHORITY □
- Must Approve; Executive ■
- Must Recommend For Approval □
- Must Approve; Professional ▼

COMMUNICATION △
- Must Be Consulted ▲ } Discussion
- Must Be Informed △ } Discussion
- Must Advise or Guide ▼ } Written
- Must Be Advised ▽ } Written

SPEC	RAC MATRIX FOR M.V. [illegible] INSTRUMENTATION PROJECT TDC
	NO. SS-7183-M01

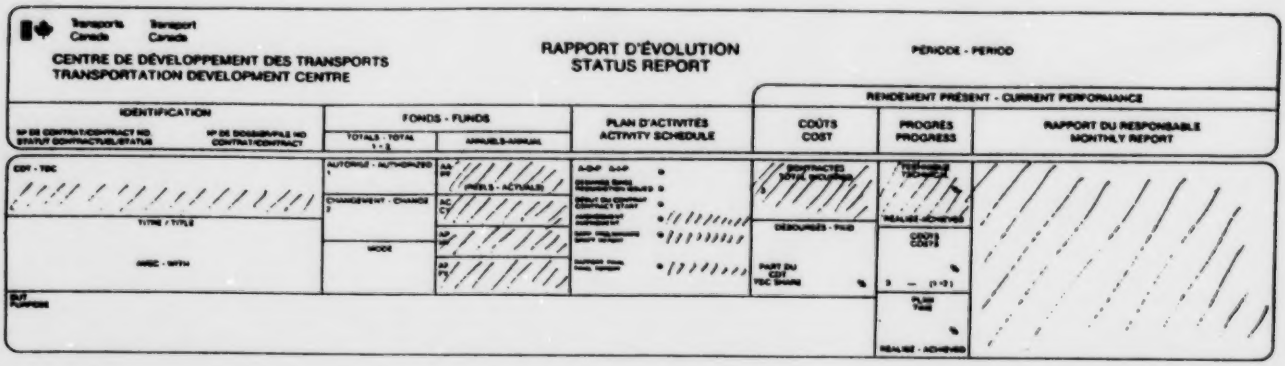
SAMPLE

APPENDIX 5-3


1.3.1 Master Work Schedule and Cost Plan (T1)
1.3.2 Survey of Maintenance Problems (T2)
1.3.3 Identification and Listing of Problems (T3)
1.3.4 Literature Search (T4)
1.3.5 Maintenance Research Plans (T5)
1.3.6 Final Report (T6)
1.3.7 Supplementary Proposal (T7)
REVIEW DOCUMENTS
DEBUG QUESTIONNAIRE
PREPARE QUESTIONNAIRE
DEVELOP SURVEY APPROACH
DEVELOP RANKING METHOD
PLAN ECONOMIC ANALYSIS
DEVELOP WEIGHTING FOR RANKING
PLAN LITERATURE RESEARCH
ARRANGE BRIEFING MEETING
DEVELOP MASTER PLAN
CONDUCT REVIEW FRA
APPROVAL BY FRA
DO DETAILED SCHEDULE TO NEXT REVIEW
BRIEF SURVEY PEOPLE
LITERATURE RESEARCH CONTRACT
SURVEY AGENCIES
SURVEY RAILROADS
SURVEY INDUSTRIES
DO LITERATURE RESEARCH
COLLECT STATS
MODIFY SURVEYS
DO DETAIL SCHEDULE
REVIEW WITH PROJECT TEAM
PREPARE REPORT
DEVELOP COMPUTER CODE
CONDUCT REVIEW 2 FRA
CONTINUE LITERATURE REVIEW
CONTINUE SURVEY
DO DETAILED SCHEDULE
CONDUCT REVIEW 3 FRA
PREPARE REPORT
ANALYSE & RANK RESULTS
DO DETAILED SCHEDULE
CONDUCT REVIEW 4 FRA
FINISH RANKING
SELECT LIST
CONDUCT REVIEW 5 FRA
PREPARE & SUBMIT DRAFT OF SURVEY
PERFORM ECONOMIC ANALYSIS
DRAFT REPORT
PREPARE RESEARCH
REVIEW DRAFT OF SURVEY
DRAFT MRP
CONDUCT REVIEW 6 FRA
MAKE REVISIONS
COMPLETE ECONOMIC ANALYSIS
CONDUCT REVIEW 7 FRA
PRODUCE FINAL REPORT
SAMPLE
DATE
BY
REVISION
PRELIMINARY NETWORK PLAN
NETWORK FOR
Track, Bridge and Tunnel Maintenance Research Plan Development
N° P-77429

APPENDIX 5-4

Project Officers are permitted to make changes or information additions in those parts that are shaded on the attached sample status report.



1. Project Performance:

   Estimate the percentage of the work plan carried out to date - "cost" and "time" are automatically recomputed each month. A brief statement on current status of work may be written in the monthly report remarks section. To keep the same remarks from the previous report, write "Same remarks as previous report".

2. Schedule Changes:

   Specify the dates on which the contractor will submit the draft and final reports. When the draft report has been received, the draft report date is finalized and not subject to revision.

3. Costs and Budget Changes:

   Estimate the total (multi-year) contractor expenditures incurred. This includes invoices approved but not yet paid, as well as the value of the work performed by the contractor as of the end of the reporting period. Total incurred includes holdback. Actual payments issued to date by TDC Finance appears below Total Incurred for reference. "Authorized" amount cannot be changed by entries in "PY", "CY", "NY" or "FY". Revise the "PY", "CY", "NY" and "FY" amounts as soon as changes become apparent.

4. Identification Changes:

   Revise the 30-character short project name if desired.

Note: Project officers to discuss MIS data requirements with the Senior Systems Analyst.

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / A: Name - DGRD/X

FROM / DE: Name - EDTDC

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE — N / RÉFÉRENCE
D 1465-384
YOUR FILE — V / RÉFÉRENCE
DATE

SUBJECT / OBJET: TRANSFER OF ADMINISTRATION & CONTROL TO CANADIAN PATENTS AND DEVELOPMENT LTD (CPDL) FOR DSS CONTRACT NO. OSD82-0089, DSS FILE NO. 10SD.T8200-2-2510, UTDC FRAME-BRACED RAIL FREIGHT CAR TRUCK

1. The Urban Transportation Development Corporation (UTDC) has requested a non-exclusive royalty-free licence to the technology which may arise from the above referenced contract which is over and above the technology contained in their existing patent. The current contract incorporates DSS Clause 1036 with the exception that the terms and conditions do not apply to the technology covered by the existing UTDC patent. In order that UTDC may have free access to any new technology that may evolve from this project, they are requesting a royalty-free non-exclusive licence.

2. For your information, TDC is only funding 50% of the project costs with the remaining 50% coming from two Ontario provincial ministries. The request for a royalty-free non-exclusive licence is justified by the fact that the Crown is only funding 50% of the project.

3. TDC supports this request, however before Canadian Patents and Development Limited (CPDL) can respond positively and licence any output of the contract, CPDL must have Administration and Control of it. In order that Administration and Control may be formally transferred, a suggested draft letter to CPDL is attached for your review and approval.

Executive Director

.../jv
Attach.

Transport Canada Transports Canada

Chief Executive Officer,
Canadian Patents and Development Limited,
275 Slater Street,
Ottawa, Ontario.
K1A 0R3

SUBJECT: RIGHTS TO TECHNOLOGY ARISING FROM CONTRACT WITH URBAN TRANSPORTATION DEVELOPMENT CORPORATION

Dear Mr.

The Urban Transportation Development Corporation (UTDC) of Toronto has requested a non-exclusive royalty-free licence to the patentable technology which may arise from the work carried out on our behalf under DSS Contract No. OSD82-0089 for the development of the UTDC Frame-Braced rail freight car truck. The contract incorporates DSS clause 1036 with an exclusion for the technology covered by the patent(s) already assigned to UTDC. We are informed by UTDC that Her Majesty the Queen in right of Canada is funding only 50% of the project costs under DSS Contract No. OSD82-0089, the balance being funded by two Ontario Government Departments. We do not have particulars of the arrangements between UTDC and the two Ontario Government Departments, including what, if any, claim they may have under such arrangements to patentable technology. In view of the fact that the technology is complementary to that already owned by UTDC, and assuming that the arrangements between UTDC and the two Ontario Government Departments do not give rise to any conflict with the rights of the Federal Crown under DSS Contract OSD82-00089, we are prepared to accede to this request.

We understand that you will be able to conclusively determine whether or not there is anything in the arrangements between UTDC and the two Ontario Government Departments in conflict with the Federal Crown's rights in patentable technology under DSS Contract No. OSD82-00089 and, assuming no conflict exists that you can proceed with the provision to UTDC of the requested non-exclusive royalty-free licence.

/2...

Place de Ville
Ottawa
K1A 0N5

Having regard and subject to the foregoing and in accordance with Treasury Board Minute 468904, dated August 18, 1954, the administration and control of the Federal Crown's rights to technology arising from the work carried out under DSS Contract No. OSD82-00089, entitled "Frame Braced Rail Freight Car Truck", awarded to Urban Transportation Development Corporation Limited, of Toronto, Ontario, effective 17 September, 1983, is hereby transferred to Canadian Patents and Development Limited, Ottawa, Ontario.

Yours sincerely,

Director General
Research and Development

c.c.: DSS (Science Procurement Manager)
TDC (EDTDC)

.../jv

Transportation Development Centre
Centre de développement des transports

Routing Slip / Bordereau d'acheminement

CLAIM FOR PAYMENT/DEMANDE DE PAIEMENT: 29

Reiner . 87-11-19 J.J.

Project Title : Titre du projet :	DANGEROUS GOODS ACCIDENT MODEL	TDC Project No.: No. de projet CDT:	
		TDC Contract No.: No. de contrat CDT:	6836
Contractor : Contractant :	W.R. DAVIS ENGINEERING LTD	TDC File No.: No. de dossier CDT:	D1465-503
Project Officer : Agent de projet :	D. Dibble	Requisition No.: No. de commande:	T8200-6-6550
Responsibility Centre No.: No. du centre de responsabilité:	257110	DSS or TDC Contract No.: No. de contrat MAS ou TC:	T8200-6-6550/01-SZ

Type of Contract/Type de contrat:

[X] DSS/MAS [ ] Interdepartmental/Interministériel [ ] Intradepartmental/Intraministériel [ ] Service/Service [ ] TC

Claim No.: No. de demande: 5 (C86-26)

[ ] Final Claim / Demande finale [ ] Holdback Claim / Demande retenue *

ROUTE TO ACHEMINER VERS (Name/Nom)	RESPONSIBILITY RESPONSABILITÉ	ACTION	RECEIVED/ REÇU DATE	RECEIVED/ REÇU INIT.	FORWARDED/ ACHEMINÉ DATE	FORWARDED/ ACHEMINÉ INIT.
	Central Registry/ Fichier Central	Initiate Routing/ Commencer acheminement	16-11-87	J.J.		
	TDC Finance Finance CDT	Audit/ Vérification	19-11-87	J.J.	19-11-87	J.J.
D. DIBBLE	Project Officer/ Agent de projet	Recommendation/ Recommandation	23/11	CB	23/11/87	D.W.D
W. McLAREN	Division Head/ Chef de division	Approval/ Approbation	27/11/87	CB	27/11/87	WML
	TDC Finance/ Finance CDT	Coordination/ Coordination				
M. RANCOURT	DSS/ MAS (Hull)	Approval/ Approbation *	1/12/87	MS	6/12/87	MS
	TDC Finance/ Finance CDT	Payment of Invoice/ Paiement de facture				

* DSS 1111 Claim for progress payment
MAS 1111 Demande de paiement partiel

TL -79-011

APPENDIX 5.8

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / A	N.E. Rudback
FROM / DE	D. Whitehead

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE — N / RÉFÉRENCE D1465-509
YOUR FILE — V / RÉFÉRENCE
DATE November 25, 1987

SUBJECT / OBJET: Amendment to contract for the project "Development and Demonstration of a Knowledge-Based Vehicle Dispatcher's Assistant

The above referenced project started a few months ago. At the outset an amount of $1,700 was identified for the purchase of an AI shell that would be used for the project. Recently, a much better software costing $7,500 US, approximately $10,125 Canadian, became available. This amendment includes an extra $8,425 for the improved shell.

The original proposal called for keyboard entry of commands and printed output of instructions thus restricting the system's use to operators familiar with EPP equipment. A voice driven interface, composed of a voice synthesizer and voice recognition system, would greatly enhance the system's friendliness and thus increase the probability of success of the end product. The total value of this voice driven interface is estimated at $16,907, of which TDC would contribute $11,375 and the contractor. the remaining $5,532.

This new shell and voice interface capability would create a more effective and powerful system then that originally envisaged.

To date, $5,000 has been spent on the project and the revised figure with the proposed amendment would be $136,852 as detailed on page 2.

.../2

Spent to date:	$ 5,000	
Remaining budget:	$112,052	
Original budget:		$117,052
AI shell software:		
cost of proposed new shell:	$10,125	
less cost of original shell:	1,700	
Increase in cost:	$ 8,425	$ 8,425
Voice driven interface:		
Total cost:	$16,907	
Contractor's contribution:	$ 5,532	
Increase in cost:	$11,375	$ 11,375
Total increase	$19,800	
Amended total contract cost:		$136,852

The Work Statement is to be amended to include the terms outlined in the contractor's November 15, 1987 proposal. All other specifications of the contract remain unchanged.

Douglas Whitehead

PB/sm

Supply and Services Canada / Approvisionnements et Services Canada

REQUISITION FOR AMENDMENT - DEMANDE DE MODIFICATION

TO: SUPPLY AND SERVICES CANADA

800 Golf Road
Nuns' Island
Verdun (Quebec)
H3E 1G9

FOR AMENDMENT ONLY - AUX FINS DE MODIFICATION SEULEMENT

AMENDMENT NO.			
1	$ 19,800.00	$ 136,852.00	$ 117,052.00

T8200 | T8200 7 7502

PAGE 2

ORIGINATOR - AUTEUR: Transportation Development Centre

ADDRESS INQUIRIES TO - ADRESSER TOUTE DEMANDE DE RENSEIGNEMENTS A: L. Sabounghi (514) 283-0029

DESTINATION: Transportation Development Centre
200 Dorchester Blvd West
Suite 601, West Tower
Montreal (Quebec)
H2Z 1X4

INSPECTION AGENCY - CHARGE DE L'INSPECTION: FINAL AT DESTINATION / SPECIFIED IN PRICE DATA PRESENTED

QUALITY ASSURANCE - ASSURANCE DE LA QUALITE: END USER / SPECIFIED IN PRICE DATA PRESENTED

INSTRUCTIONS
1 ALL REQUIREMENTS MUST BE COMPLETED USING ONE OF THE FOLLOWING OCR FONTS: OCR "B" PRESTIGE ELITE, LETTER GOTHIC OR COURIER 10 AU CHOIX
2 ENSURE ANY TYPOGRAPHICAL ERRORS ARE CORRECTED ON ALL PARTS
3 REMOVE ALL CARBONS PRIOR TO MAILING

1 TOUTES LES DEMANDES DOIVENT ÊTRE REMPLIES EN CARACTÈRES D'IMPRESSION OCR "B" PRESTIGE ELITE, LETTER GOTHIC OU COURIER 10 AU CHOIX
2 S'ASSURER QUE LES CORRECTIONS SONT APPORTÉES SUR TOUTES LES FORMULES
3 ENVOYER LES PAGES 1, 2 ET 3 SANS LES DÉTACHER
4 ENLEVER TOUTES LES CARBONES AVANT DE POSTER

CONFIRMATION WITH DSS - CONFIRMATION DU MAS: ☐ TELEPHONE - TELEPHONE ☐ TELEX - TELEX

FINANCIAL CODES - CODES FINANCIERS: 257130-9715-6900-1020-2398
File D1465-509; Project 6900/6901

AMOUNT - MONTANT

INVOICES - ORIGINAL AND TWO COPIES ARE TO BE MADE OUT AND SENT TO
FACTURES - REMPLIR 3 FACTURES ORIGINALES ET ENVOYER A

FOR USE ONLY - AUX SEULES FINS

REFERENCE - LISTING AND DESCRIPTION OF REQUIREMENTS - DESCRIPTION DES BESOINS

DEVELOPMENT AND DEMONSTRATION OF A KNOWLEDGE-BASED VEHICLE DISPATCHER'S ASSISTANT

1. **REQUISITION ITEM**

It is requested that an amendment of $(11,375 + 8,425) be incor-
[redacted] into contract No. 14SD.T8200-7-7502 with Applied AI
[redacted] Avenue, Suite 3, Kanata, Ontario

7/12/1987

Canada

APPENDIX 5-10

Supply and Services Canada | Approvisionnements et Services Canada

CONTINUATION - SUITE

			PAGE 2 OF 2	T8200-7-7502

ITEM ARTICLE	REFERENCE / STOCK NO AND DESCRIPTION	DATE REQUIRED DEMANDE REQUISE LE	CONSIGNEE CODE CODE DU DESTINATAIRE		QUANTITY QUANTITE	ESTIMATED COST PRIX ESTIMATIF		PREVIOUS QUANTITY AND UNIT PRICE QUANTITE ET PRIX UNITAIRE PRECEDENTS	PREVIOUS CONTRACT NO AND DATE DATE ET N° DU CONTRAT PRECEDENT

This software and voice recognition/synthesizer will greatly improve the quality of the end product of this project.

The Work Statement is to be amended to include the terms outlined in the contractor's November 15, 1987 proposal.

All other conditions and specifications of the contract remain unchanged.

Canada

APPENDIX 5-11

PROJECT REVIEW MEETING / RÉUNION D'ÉTUDE

RECORD OF DECISION / COMPTE RENDU DES DÉCISIONS

ct Title/Titre du projet: Elderly + Disabled - Database

Project No./N° de projet: 6931

File No./N° de dossier: D1450-104

Project Objective/Objectif fixé: ☑ No Change/Inchangé ☐ Modified/Modifié

Work Statement/Énoncé des travaux: ☑ No Change/Inchangé ☐ Modified/Modifié

Evaluation of Technical Progress/Évaluation de l'avancement:

Data quality is in line with expectations. On schedule, however there is possibility of one to two month delay because of delayed delivery of Statistics Canada's microfile.

Meeting Decisions/Actions décidées:

It was agreed that existing statistical software packages (instead of customized analytical software) will be used to analyze data from Statistics Canada.

Project Cost/Impact budgétaire: ☑ Project will be completed within contract limit/Aucun dépassement ☐ Request budget revision (State amount and reason)/Révision budgétaire demandée (préciser le motif et le montant)

Delivery Schedule/Date(s) de livraison: ☑ No Change/Inchangée(s) ☐ Modified/Modifiée(s)

Dates for/Dates pour:

Draft Technical Report/Avant-projet de rapport: August 1988

Published Reports/Rapports: December 1988

Equipment/Matériel ou équipement: N/A

Other/Autre:

Signed by/Signé par:

TDC Project Officer/Agent de projet du CDT: Trevor Smith

Contractor/Contractant: J. Deane

Date: Oct. 21, 1987

Review Committee/Comité de direction: L. Suen, F. Haled

(Signatures)

NOTE: Signature of this form does not authorize the contractor to exceed the approved budget. Additional costs will be allowed unless approved in advance by a formal contract amendment./ Ce document n'autorise pas le contractant à dépasser le budget convenu. Seuls les frais supplémentaires approuvés et faisant l'objet d'un avenant seront autorisés.

TDC/CDT 87-006

CHAPTER 6

PROJECT COMPLETION PHASE

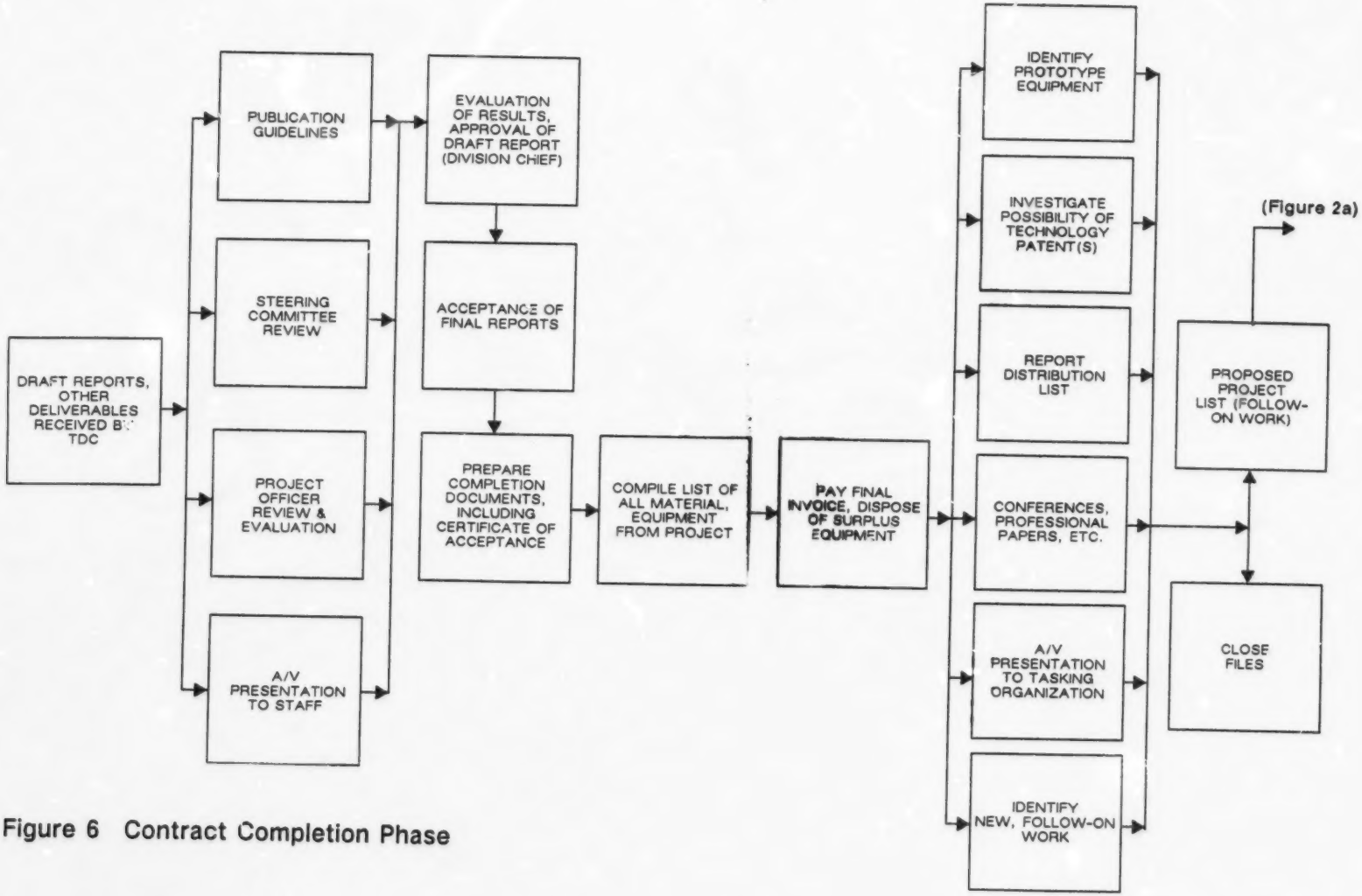


Figure 6 Contract Completion Phase

SCOPE
(see Figure 6)

This chapter describes TDC procedures for processing a contractor's report and closing out a project. It includes:

- the process for reviewing and evaluating the draft report,
- the process for evaluating the work of the contractor and the results of the project as described in the report,
- the process for disseminating project results and distributing reports,
- the process for authorizing final payment on a contract.

POLICY

The TDC Scientific Authority on a project is responsible for evaluating the technical quality of all project work and for certifying that the contractor has met all the commitments of the contract. TDC is also responsible for the timely dissemination of information on the project's results to sponsoring organizations, the public and other organizations that have an interest in the results. Additionally, since much of R&D is an evolutionary process, it is TDC's responsibility to analyze the results of a project to identify any need for further related work.

BACKGROUND

The deliverable for most TDC projects is a contractor's report. Through this report TDC evaluates the merits of the work done; meets its responsibilities in terms of technology transfer and information dissemination; and develops subsequent recommendations for future work. For these reasons, TDC has in place carefully prescribed standards relating to reports. These standards are contained in "TDC Publication Standards and Guidelines for Contractors" (TP 929), and the quality control relating to the enforcement of these standards is done by Publications and Editorial Services. The receipt of a draft final report triggers the completion phase of a project.

PROCEDURES

These procedures describe the necessary steps to ensure that the project completion phase is carried out systematically, expeditiously and in accordance with TDC standards. The Project Officer is aided in this task, particularly with respect to report processing, by the Records Office, Publications and Editorial Services. Technical reports are a principal TDC output and represent an important means of communicating the results of TDC activities to the transportation community. Therefore, effective and prompt reporting are of prime importance in TDC's R&D function.

These procedures apply to all contractor's reports which, in accordance with the contract, are intended for publication. Most contracts call for a single final report to be produced upon completion of the technical work. Other contracts require one or more publications to be produced during the course of the contract, upon completion of a significant task or portion of the work, i.e. interim reports, also called milestone, phase or task reports. Progress reports, working papers and interim reports not intended for publication are not subject to these procedures.

6.10 RECEIPT OF DRAFT REPORT AND OTHER DELIVERABLES

Responsibility	Action
All TDC staff	1. Direct all draft reports. or other contract deliverables, to Records Office.
Records Office	2. Time and date stamp reports, audio-visual material and other deliverables submitted by the contractor. Send one copy of draft report to Editorial Services. Prepare Report Information Form (see Appendix 6-1), and send to the Project Officer along with remaining copies of the report, other deliverables and copies of Audio-Visual Deposit Form (CDT/TDC 83-006) (see Appendix 6-2). If only one copy of the draft report is received, forward to the Project Officer, and inform both the Project Officer and Editorial Services that only one copy was received.
Editorial Services	3. Review report for compliance with TP 929. Edit and revise report documentation form and summary, in consultation with Project Officer, and arrange for translation. Forward draft report with editorial comments, to Project Officer within five working days (see Appendix 6-3). Review translation and forward to Project Officer.
Project Officer	4. Undertake a preliminary review of report within seven working days of receipt of draft. Consult comments from Editorial Services and complete Report Information Form (see Appendix 6-1) as follows: — If the draft is generally satisfactory, is presented in a suitable report format and contains all or most key elements (introduction, discussion, conclusions, illustrations, appendices) it is accepted for editorial and technical review. (An incomplete report documentation form or summary does not automatically call for rejection of draft). — If the draft is in a crude state, with its contents too incomplete and its format too unfinished to warrant proceeding with editorial and detailed technical review, it is rejected.
	5. If the draft is accepted for review, project the date by which detailed technical comments (including those of steering and/or review committee) will be sent to the contractor, referring to the delivery schedule of reports specified in the contract Work Statement (see Appendix 4-4, Annex A). Forward the remaining copies of the report to the steering or review committee members and ask them for an estimated date for receipt of their comments.

6. If the draft report is incomplete (balance of required number of draft reports, summary or separate summary report, report documentation form, etc.), and therefore rejected for review, take immediate action and telephone the contractor.

7. If the draft is rejected, advise Editorial Services by telephone and the contractor in writing with copies to EDTDC and Records Office.

8. Forward audio-visual material and accompanying Audio-Visual Deposit Form (see Appendix 6-2) to Publications Services for review and information and routing to Library.

9. Forward the Report Information Form (see Appendix 6-1)to the Division Chief and proceed with detailed technical review of draft report (see section 6.20).

Division Chief

10. Review the Report Information Form with particular reference to the projected date for forwarding of technical comments to contractor, project report deliverables, language requirements and provision for translation. If in agreement, initial the routing/action slip and forward to Editorial Services and Records Office.

Records Office

11. Using the information provided by the Project Officer on the Report Information Form, obtain Transport Canada Publication (TP) number for the report and prepare a draft Report Acknowledgement Letter (see Appendix 6-4), listing any items the contractor should now supply to TDC (e.g., summary section or report, completed Report Documentation Form, etc.). Forward draft Report Acknowledgement Letter to the Project Officer for approval and signature.

    In the case of a draft final report, enter date of receipt of report into the MIS.

Project Officer

12. Amend the Report Acknowledgement Letter as may be necessary and send to contractor with a copy to Records Office.

NOTE: Project Officers must ensure that adequate acknowledgement is given in TDC reports to other funding sources.

6.20 DETAILED TECHNICAL REVIEW OF DRAFT REPORT

Project Officer

1. Proceed with detailed technical review of draft report and study comments from Editorial Services and, if applicable, steering and/or review committee.

2. In accordance with the schedule specified in the contract work statement (see Appendix 4, Annex A) and/or the date specified in the Report Information Form (see Appendix 6-1), prepare and send a reply to the contractor (with a copy to the Records Office), incorporating or attaching, as required:
   - detailed technical comments,
   - draft report indicating required modifications (make photocopy for future reference),
   - comments from steering and/or review committee,
   - comments from Editorial Services,
   - translation of, or completed, Report Documentation Form(s),
   - translation of summary section.

   If the draft report requires major modifications, instruct the contractor to submit a revised draft and specify the number of copies required (minimum of two).

   If the draft report is satisfactory or requires only minor modifications, instruct the contractor to proceed with printing and specify quantities. Also ask contractor to supply any additional names and addresses for the report's mailing list.

3. If the draft report is fully satisfactory and if, according to the contract, TDC is responsible for translating and producing the report in the other official language, send three copies of the draft to Editorial Services for translation arrangements.

Records Office

4. Record date comments were sent to the contractor. Advise Library to proceed with mailing list (see Appendix 6-5).

5. Where applicable, obtain list of equipment and consult with the Project Officer regarding disposal plans. If equipment is to be sent to Crown Assets Distribution Centre for disposal, prepare Report of Surplus Material (form SSC-ASC 11001 [7186]), for signature by the Project Officer and subsequent approval (see Appendix 6-6).

Library

6. Prepare draft mailing list and submit to the Project Officer.

6.30 RECEIPT AND APPROVAL OF REVISED DRAFT

Records Office

1. Upon receipt of revised drafts, time and date stamp reports and send one copy to Editorial Services and the remainder to the Project Officer.

Editorial Services	2. Same procedure as in 6.10.3.
Project Officer	3. Same procedure as in 6.20.1-3.

6.40 RECEIPT OF PRINTED REPORTS AND OTHER DELIVERABLES

All TDC staff	1. Direct all reports and deliverables to Records Office.
Records Office	2. Send one copy of the report to the Project Officer and one to Editorial Services for quality control.
	3. Verify that the correct quantity of reports has been received and that other project deliverables have been received, such as: — camera-ready master and original artwork (e.g., photographs, drawings, etc.), — audio-visual material, — instruction manuals, — list of equipment, — other items as per the contract.
	4. Send camera-ready master, artwork and audio-visual material to Publications Services for quality control.
Publications and Editorial Services	5. Send quality control comments to the Project Officer with a copy to Records Office within two working days of receipt of report.
Project Officer	6. Review the report and comments from Publications and Editorial Services and proceed as follows : — if the report is satisfactory, send a note to advise Records Office to proceed with action required for project close-out (see section 6.50) and report dissemination (see section 6.60), — if the report is acceptable but requires minor modifications, consult Records Office and/or Publications Services regarding corrections, — if the report is not acceptable, send a letter to the contractor (and a copy to Records Office) explaining the reasons for rejection and requesting re-submission, — if the camera-ready master, artwork and/or audio-visual material is satisfactory, return with completed Audio-Visual Deposit Form(s) to Publications Services (see Appendix 6-2),

— if the camera-ready master, artwork and/or audio-visual material is not acceptable, return to the contractor requesting modification and re-submission.

NOTE: For interim, milestone or phase publications, the only further action required is the signing of Information Referral Service Process Form 09-0181 (6-82) (see Appendix 6-7).

6.50 PROJECT CLOSE-OUT

Records Office

1. Enter into the MIS the date of receipt of last report deliverable (e.g. final or summary report).

2. Prepare a draft Project Completion Letter (see Appendix 6-8), for approval and signature by Project Officer.

3. Prepare the Completion Documents routing/action slip, (see Appendix 6-9). Forward project completion folder containing:
   — one copy of the report,
   — an Information Referral Service Process Form for completion and signature (see Appendix 6-7),
   — a copy of the Certificate of Acceptance with top portion completed (see Appendix 6-10),
   — the draft Project Completion Letter (see Appendix 6-8).

Project Officer

4. Verify that all project deliverables have been received. Complete and sign forms in project completion folder. Amend Project Completion Letter if necessary, send to contractor and insert copy in folder. Complete SSC Post-Contract Evaluation Form (see Appendix 6-11); send original to SSC and add copy to folder. Prepare and add the Projection Completion Memorandum (see section 6.60). Route project completion folder to Division Chief and EDTDC.

5. If applicable, verify that Audio-Visual Deposit Form has been prepared and routed to Publications Services and Library (see Appendix 6-2).

Division Chief/EDTDC

6. Review and/or sign completion documents; forward to TDC Finance.

TDC Finance

7. Process final invoice and claim for holdback, if applicable. Update project status from "active" to "completed".

Note: TDC Finance pays final invoices and closes out a project only after it has received the completed Certificate of Acceptance, the contractor's final invoice and, if applicable, claim for holdback.

6.60 PROJECT COMPLETION MEMORANDUM

It is necessary to evaluate the results of each project, and to compare these with the objective set out in the project justification. The project evaluation shall be summarized in a one to two page Project Completion Memorandum (see Appendix 6-12), signed by the Division Chief, indicating:

- the principal technical results,
- comparison of results achieved with the project objective,
- implications of these results for TC or the transportation system,
- intended use of the results,
- planned future action.

The Project Completion Memorandum is to be signed by the Division Chief and routed to EDTDC (with a copy to DGRD and Modal Coordinators and funding groups) and will form the basis of a formal TDC response to tasking authorities, steering committee members or other interested parties.

6.70 DISSEMINATION OF RESEARCH FINDINGS, REPORTS AND REPORT DOCUMENTATION FORMS

Project Officer

1. Prepare a letter summarizing the results of tasked and endorsed projects. Recommend future action to the tasking authority, or project sponsor or endorser. Forward the letter to EDTDC for review and signature, and copies to members of the steering or review committee, and TC modal group representatives as appropriate.

2. Review mailing lists supplied by the Library and by the contractor and determine distribution of report and report documentation forms (see Appendix 4-9). Finalize mailing list and forward to Library.

Library

3. Print mailing labels and forward to Records Office.

Records Office

4. Distribute reports and report documentation forms.

NOTE: The English and the French versions of reports produced in both official languages must be released and distributed simultaneously.

6.80 EXPLOITATION OF RESULTS

A completed project is only as successful as its follow-up activities. This is especially true whenever the principal delivery is a report, piece of equipment or an item in which the contractor does not have a direct commercial interest. To ensure full exploitation of results achieved, the follow-up procedure should include:

— If the deliverable is a document, in final quality and there is no immediate need to continue research in other related areas, a comprehensive distribution of the report to all possible interested parties (with particular emphasis on the tasking, endorsing and initiating groups).

— If the deliverable is a document but additional work is needed in related areas, follow the above procedure, but discuss the upcoming activity with all interested parties in order to ensure relevance and continuity.

— If the deliverable is a tangible system or device, the interested parties should be formally advised regarding the transfer of the deliverable for their use or testing. Ensure that all relevant documentation is attached, and secure feedback as soon as possible.

CHAPTER 6
APPENDICES
PROJECT COMPLETION PHASE

Appendix 6-1	Report Information Form and Routing/Action Slip
Appendix 6-2	Audio-Visual Deposit Form
Appendix 6-3	Editorial Review and Quality Control of Contractor's Report
Appendix 6-4	Report Acknowledgement Letter
Appendix 6-5	Request for Preparation of Mailing List
Appendix 6-6	Report of Surplus Material
Appendix 6-7	Information Referral Service Process Form 09-0181
Appendix 6-8	Project Completion Letter
Appendix 6-9	Completion Documents: Routing/Action Slip
Appendix 6-10	Certificate of Acceptance
Appendix 6-11	SSC Post-Contract Evaluation Form
Appendix 6-12	Project Completion Memorandum: Sample

Transports Canada | Transport Canada

Développement | Development

BORDEREAU D'ACHEMINEMENT:/ROUTING SLIP:
FICHE D'INFORMATION SUR LE RAPPORT/REPORT INFORMATION FORM

ACHEMINER VERS ROUTE TO (NOM/NAME)	RESPONSABILITÉ RESPONSIBILITY	ACTION	REÇU RECEIVED		ACHEMINÉ FORWARDED	
			Date	Init.	Date	Init.
	Fichier Central Records Office	Préparer & annexer: Annexe 6-1 Prepare & attach: Appendix 6-1				
	Agent de Projet Project Officer	Dans les sept jours ouvrables: Within seven working days: a) répondre aux questions 1 à 5 answer items 1 - 5 b) vérifier les données fournies de 6 à 8 check items 6 - 8 c) signer & acheminer sign & forward				
	Chef de Division Division Chief	Examiner & signer Review & sign				
	Service d'édition Editorial Services	Prendre note & acheminer Note & forward				
	Fichier Central Records Office	Examiner & traiter Review & process				

Canada

CDT/TDC-87-002

DRAFT REPORT INFORMATION FORM

PROJECT NUMBER: 4239
PROJECT TITLE (as on contract):HULL CORROSION

NUMBER OF COPIES RECEIVED:_____

1. TITLE OF DRAFT REPORT (review and modify title, if necessary; provide series titles, volume number and sub-title, if applicable):

   ---

2. TYPE OF DRAFT REPORT:

   |_| FINAL REPORT
   |_| SUMMARY REPORT
   |_| INTERIM REPORT FOR PUBLICATION
   |_| PROGRESS REPORT OR OTHER WORKING DOCUMENT NOT FOR PUBLICATION

N.B. IF YOU CHECK THE LAST BOX, STOP HERE AND FORWARD THE FORM DIRECTLY TO EDITORIAL SERVICES/RECORDS OFFICES.

3. PRELIMINARY REVIEW OF REPORT

   |_| ACCEPTED FOR DETAILED TECHNICAL REVIEW, OR
   |_| REJECTED

   (If rejected, notify contractor in writing, with copies to EDTOC and to Records Office, and advise Editorial Services by telephone. Return the form to Records Office).

4. TARGET DATE FOR DETAILED TECHNICAL REVIEW:

   THE DATE AT WHICH YOU ANTICIPATE SENDING TECHNICAL AND EDITORIAL COMMENTS TO THE CONTRACTOR IS __ / __ / __ .

5. ADDITIONAL DOCUMENTS REQUIRED

REPORT DOCUMENTATION FORM(S)	|_| RECEIVED	|_| NOT RECEIVED
SUMMARY SECTION	|_| RECEIVED	|_| NOT RECEIVED

INFORMATION PROVIDED IN ITEMS 6 TO 8 WAS EXTRACTED FROM THE MIS PROJECT ENTRY FORM. PLEASE CONFIRM OR MODIFY, AS REQUIRED.

6. LANGUAGE REQUIREMENTS: UNDEF.

   |_| UNCHANGED
   |_| MODIFIED FOR: _____

TRANSLATION TO BE PROVIDED BY: UNDEF

|_| TDC |_| CONTRACTOR

7. REPORT DELIVERABLES:

NUMBER OF COPIES REQUIRED BY CONTRACT:

8. OTHER DELIVERABLES:

|_| NO CHANGE
AMENDED _____

_____

HAS CONTRACTOR PROVIDED A LIST OF EQUIPMENT OR MATERIAL BELONGING TO TRANSPORT CANADA, WITH COMPLETE IDENTIFICATION, LOCATION, VALUE, ETC.?

|_| YES |_| NO |_| NOT APPLICABLE

_____ _____

PROJECT OFFICER DIVISION CHIEF

Centre de développement des transports
Transportation Development Centre

Formulaire de dépôt audio-visuel/Audio-Visual Deposit Form

Titre/Title: Advanced composites surface preparation. —

Date (quand le film ou la diapositive à été pris)/
Date (when film or slides taken): 1986

Diapositives/Slides: (quantité/quantity) 1 slide: col.

Film: (durée/length) : (son/sound) : (couleur/color) : (8 mm ou/or 16 mm)

Video: (durée/length) : (audio) : (couleur/color) : (½" ou/or ¾")

Description: Advanced composite materials on the Boeing 757 appearing in Boeing Airliner Apr-June 1986, p. 13.

Numéro de projet/Project number: H. Posluns

Agent de projet/Project officer:

Organisations participantes/Participating organizations:
Boeing

Mots-clés/Key words: 1. Composites

CDT/TDC 83-008

APPENDIX 6-2

TDC

EDITORIAL REVIEW AND QUALITY CONTROL OF CONTRACTOR'S REPORT

TITLE: Emergency Evacuation of Elderly and Disabled Passengers from Transportation Vehicles and Terminals

TP #: --- **AUTHOR:** TransVision Consultants

PROJECT OFFICER: L. Suen **REVIEWED BY:** D.I.

FIRST DRAFT REC'D: 27/4/87 **SECOND DRAFT** REC'D: **FINAL:** X

REVIEWED: 01/5/87 REVIEWED: **SUMMARY:**

OTHER:

COVER AND FRONT MATTER

_X_ **COVER:** Add TP number, "prepared for..." statement -- see TP 929, p.3.

_X_ **TITLE PAGE:** Add TP number, authors

_X_ **DISCLAIMER, LANGUAGE NOTE:** Corrections required; see notes in report.

_X_ **REPORT DOCUMENTATION FORM:** Corrections required; review suggested revisions and return for translation.

_X_ **SUMMARY:** Incomplete - add brief discussion of results of evaluation of evacuation methods and aids (chapter 5), conclusions (chapter 6) and principal recommendations (chapter 7). See also notes on pp. v and vi.

_X_ **TABLE OF CONTENTS:** Lists of tables and figures recommended.

_X_ **OTHER:** Official language requirements: unless a French version of this report is planned, a bilingual summary is required- **please advise.**

BODY OF REPORT AND REFERENCE MATERIAL

References: see notes on p. 33 of report; consult TP 929, p.13.

ILLUSTRATIONS

Fig.1,2: poor reproductions, halftones required.

Fig.5,6,7: captions recommended.

FORMAT

_*_ **TEXT PAGE:**

_*_ **PAGINATION:**

_X_ **PRINTING/BINDING:** Print final recto-verso.

PRINTED REPORT - QUALITY CONTROL **REC'D:** **REVIEWED:**

___ **ACCEPTABLE**

___ **UNACCEPTABLE:**

___ **ACCEPTABLE WITH QUALIFICATIONS:**

c.c. Records Office
Publications Section

APPENDIX 6-3

Transports Canada
Transport Canada

Centre de développement des transports
Transportation Development Centre

Complexe Guy-Favreau
200 ouest, boul. Dorchester
Suite 601, tour ouest
Montréal, Québec H2Z 1X4
Télex: 05-24713
Tél.: (514) 283-0000

Guy Favreau Complex
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4
Telex: 05-24713
Tel.: (514) 283-0000

Votre référence *Your file*

Notre référence *Our file*
(File No.)

(TO BE PREPARED BY RECORDS OFFICE)

(Date)

(Address)

SUBJECT: TITLE OF REPORT, TP NUMBER

Dear Sir/Madam:

We acknowledge receipt of the above draft report. Following a preliminary review of the report, we note that the following required document(s) is(are) missing:

Report Documentation Form
Summary report
Summary section
List of all equipment pertaining to the project and belonging to Transport Canada
Other (specify)

Please forward this (these) item(s) to us as soon as possible so that we may expedite the processing of your project.

In the meantime, we are proceeding with a detailed technical and editorial review of the report, which we expect to complete on (date from Appendix 6-1).

Yours very truly,

(Project Officer)
(Title)

c.c. Records Office

Canada

APPENDIX 6-4

MAILING LIST REQUEST

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / À: TDC Library

FROM / DE: Records Office

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE – N / RÉFÉRENCE
D-
YOUR FILE – V / RÉFÉRENCE
DATE

SUBJECT / OBJET: (TITLE OF REPORT, TP NUMBER)
PROJECT OFFICER: (NAME)

The above report is in the final stages of production.

Please provide the project officer with a suggested mailing list, using the information provided below:

Contractor:

Transportation mode:

User(s) of results:

Number of copies to be printed: _____ English

_____ French

_____ Bilingual

APPENDIX G-5

Supply and Services Canada | Approvisionnements et Services Canada

Crown Assets Distribution Centre | Le Centre de distribution des biens de la Couronne

REPORT OF SURPLUS
(MATERIEL AND EQUIPMENT)

NOTE: YOUR REGIONAL SSC OFFICE CAN ASSIST IN THE PREPARATION OF THIS FORM OR IN THE SEGREGATION AND CLASSIFICATION OF MATERIEL WHEN COMPLETED, FORWARD TO:

REGIONAL SUPPLY CENTRE IN YOUR AREA

RELEVÉ DE BIENS EXCÉDENTAIRES
(MATÉRIEL ET ÉQUIPEMENT)

REMARQUE: VOTRE BUREAU RÉGIONAL D'ASC PEUT VOUS AIDER A REMPLIR LA PRESENTE FORMULE, AINST QU'A TRIER ET A CLASSIFIEP LE MATÉRIEL ENVOYER LA FORMULE UNE FOIS REMFLIE A L ADRESSE SUIVANTE

VOTRE CENTRE D'APPROVISIONNEMENT RÉGIONAL

1 DEPARTMENT OR AGENCY - MINISTÈRE OU ORGANISME

Transportation Development Centre
200 René-Lévesque Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4

2 DEPT IDENT CODE / CODE D'IDENT DU MIN

3 PHYSICAL CODE / CODE D'ENTREPOSAGE

4 FOR SSC USE ONLY - RÉSERVÉ A ASC

SSC SERIAL NO - NUMÉRO DE SÉRIE D'ASC

REGIONAL CODE / CODE RÉGIONAL

5 I CERTIFY THAT THE MATERIAL HEREIN DECLARED SURPLUS IS THE PROPERTY OF HER MAJESTY UNLESS OTHERWISE STATED
JE CERTIFIE QUE, SAUF INDICATION CONTRAIRE, LES BIENS DÉCLARÉS EXCÉDENTAIRES DANS LA PRÉSENTE FORMULE APPARTIENNENT A LA COURONNE

AUTHORIZED SIGNATURE - SIGNATAIRE AUTORISÉ | DATE

6 CUSTODIAN OFFICER AND TELEPHONE NO
NOM ET NUMÉRO DE TÉLÉPHONE DU RESPONSABLE

J.A. Johnston (613) 384-3100

7a ORIGINATOR'S FILE NO / DOSSIER D'ORIGINE N°

D1465-246

7b CUSTODIAN'S REPORT NO / N° DU RAPPORT DU RESPONSABLE

8 FOR SSC USE / RÉSERVÉ A ASC — MAJOR COMMODITY CODE / CODE MAJEUR DE COMMODITÉ

9 LOCATION OF ASSETS - EMPLACEMENT DES BIENS

UTDC Inc.
P.O. Box 70, Station "A"
Kingston, Ontario K7M 6P9

10 ITEM NO / ARTICLE N°	11 QUANTITY / QUANTITÉ	12 UNIT / UNITÉ	13 FEDERAL SUPPLY CLASSIFICATION (FSC) NUMBER - DESCRIPTION OF ITEMS / NUMÉRO DE NOMENCLATURE (CLASSIFICATION FÉDÉRALE DES APPROVISIONNEMENTS (CFA) - DESCRIPTION DES ARTICLES	14 PURCHASE COST / COÛT D'ACHAT
1	1	1	Dynamometer & Controller 3000 rpm; 1720 nm; 120 KW	Original cost $50,000
2	1	1	Transformer Primary 575 V/3 Phase/60 Hz delta Secondary 500 V/3 Phase/60 Hz Y Rating 225 Kva	Residual value $5,000
3	1	1	Engine GM 6V71 with C55 injectors	Orig. $8,000 Res. $ 800
4	1	1	Allison Transmission V4-2	Orig. $1,000 Res. $ 100
5	3	1	Spicer 1710 Universal Coupling and shaft	Orig. $ 500 Res. $ 50
6	3	1	Speed/Torque Transducer Lebow - 10,000 in lbs.	Orig. $3,500 Res. $ 350
7	1	1	Torque Transducer Lebow - 50,000 in lbs.	Orig. $3,500 Res. $ 350
8	1	1	I-Beam Support Frames for Test Rig	Orig. $3,000 Res. $ 300
9	1	1	Instrumentation Support Frame	Orig. $2,000 Res. $ 200
			All above equipment was purchased in 1979. The engine and transmission were purchased used. Note to CADC: Mr. Jim Johnston of UTDC Inc. has expressed interest in some of the items listed. (613) 384-3100	

15 COMMENTS - OBSERVATIONS

IMPORTANT

Separate reports are required for each category of Materiel, each location and each disposal code.

Please ensure that all descriptions are complete and any other information is included.

Any known claims, in respect to the ownership of the materiel declared, must be stated on the report of surplus.

REMARQUE IMPORTANTE

Fournir un relevé distinct pour chaque catégorie de matériel, chaque emplacement et chaque code d'aliénation.

Veuillez vous assurer que toutes les descriptions sont complètes et que tous les renseignements pertinents sont consignés.

Toute réclamation connue concernant la propriété du matériel déclaré doit figurer dans le relevé de biens excédentaires.

Transport Canada / Transports Canada

Library Use Only – *Réservé à la bibliothèque*

M

INFORMATION REFERRAL SERVICE PROCESS FORM / *SERVICE DE RENVOI AUX RENSEIGNEMENTS FORMULAIRE DE TRAITEMENT*

IF MULTIPLE DOCUMENTS IN THE SAME CATEGORY ARE BEING PROCESSED USE ONE FORM AND ATTACH LIST.
SI PLUSIEURS DOCUMENTS TRAITÉS APPARTIENNENT À LA MÊME CATÉGORIE, UTILISER UN SEUL FORMULAIRE ET JOINDRE UNE LISTE.

SECTION "A" — TO BE COMPLETED BY ORIGINATOR / *À ÊTRE REMPLIE PAR L'AUTEUR*

Title of Document – *Titre du document*	The Influence of Bow Shape on Ice Transiting Vessel Performance Parameters
Date of Document – *Date du document*	June 1987
TP Number – *Numéro du TP*	TP 8667E
Other Numbers – *Autres numéros*	D1460-213-4 PJ NO.6342
Name of Personal Author – *Nom de l'auteur*	J. Dubiel, L. Phillips
Group – *Groupe*	AC
SECTOR / *SECTEUR*	[X] Planning and Development / *Planification et développement*; [ ] Operations / *Exploitation*; [ ] Services
Directorate – *Direction générale*	ACD
Branch – *Direction*	ZCDGB/Mtl
Division	Transportation Systems Technology
Section	
Name of Responsible Manager – *Nom du gestionnaire responsable*	R.S. Nishizaki
Produced for – *Produit pour*	Transportation Development Centre

SECTION "B" (To be completed by originator) / *(À être remplie par l'auteur)*

[X] Releasable / *Accessible* [ ] Non-Releasable / *Non-accessible*

RECOMMENDED / *RECOMMANDÉ*

ORIGINATOR – *AUTEUR*: R.S. Nishizaki

DATE: October 21, 1987

SECTION "C" — TO BE COMPLETED BY MANAGER / *À ÊTRE REMPLIE PAR LE GESTIONNAIRE*

Releasable / *Accessible* [X]

(Are Documents Available for Distribution? – Les documents sont-ils disponibles pour la distribution?)

[X] Yes, *Oui* — Available from / *Disponible de*: Transportation Development Centre [ ] No / *Non*

NON-RELEASABLE / *NON ACCESSIBLE* [ ]

Documents already labelled as classified in accordance with Cabinet Directives 45 and 46, and the Transport Canada Security Manual. (TP 789)	[ ]	*Document déjà classifés conformément aux Directives du Cabinet nº 45 et nº 46, et au manuel de sécurité de Transports Canada (TP 789)*
Documents, the release of which is prejudicial to relations with other levels of Government and with other countries.	[ ]	*Documents dont l'accessibilité est préjudiciable aux relations avec les autres paliers du gouvernement et avec d'autres pays.*
Documents containing information, the release of which could allow or result in direct financial gain or loss to a person, group of persons or legal entity.	[ ]	*Documents contenant des renseignements dont l'accès peut occasionner une perte ou un gain financier direct à une personne, à un groupe de personnes ou à un corps juridique.*
Documents containing information, the release of which would be contrary to the law.	[ ]	*Documents contenant des renseignements dont l'accès serait contraire à la Loi.*
Documents containing information the release of which in the opinion of the Minister would be prejudicial to the public interest.	[ ]	*Documents contenant des renseignements dont l'accès, selon le ministre, serait préjudiciable à l'intérêt public.*

EXPLAIN – *EXPLIQUER*: [illegible]

APPROVED / *APPROUVÉ*

SIGNATURE (Manager, Group Head or Deputy Minister) / *(Gestionnaire, chef de groupe ou sous-ministre)* — Designator / *Sigle* — Date

R.S. Nishizaki — ZCDGB/MTL — 27/10/87

APPENDIX 6-7

Transports Canada
Transport Canada

Centre de développement des transports
Transportation Development Centre

Complexe Guy-Favreau
200 ouest, boul. Dorchester
Suite 601, tour ouest
Montréal, Québec H2Z 1X4
Télex: 05-24713
Tél.: (514) 283-0000

Guy Favreau Complex
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec H2Z 1X4
Telex: 05-24713
Tel.: (514) 283-0000

Votre référence *Your file*

Notre référence *Our file*
(File No.)

(TO BE PREPARED BY RECORDS OFFICE)

(Date)

(Address)

SUBJECT: PROJECT COMPLETION
TITLE OF REPORT, TP NUMBER

Dear Sir/Madam:

We acknowledge receipt of ____ printed copies of the above-mentioned report (as well as ____ copies of the summary report).

To help us expedite the processing of your contract with TDC and the release of any holdback payment, please send us:

- any equipment or material pertaining to the project: audio-visual material, work documents...;
- your final invoice (DSS form 1111, 5-83), if not already submitted, and
- your claim (DSS form 111, 5-83) for a holdback payment.

Your prompt attention to this matter would be appreciated.

Yours very truly,

(Project Officer)
(Title)

c.c. Records Office
TDC Finance

Canada

APPENDIX 6-8

Transports Canada Transport Canada
Développement Development

Centre de développement des transports
Transportation Development Centre
Bordereau d'Acheminement/Routing Slip

Canada

DOCUMENTS DE TERMINAISON/COMPLETION DOCUMENTS

Titre du Contrat: / Contract Title: ERGO ASSESSMENT MODIFIED VANS

No. de Projet CDT: / TDC Project No.: 6701

No. de Dossier CDT: / TDC File No.:CDT: D1450-103-76

Contractant: / Contractor: WEST PARK RESEARCH

No. de Contrat MAS/TC: / DSS/TC Contract No.: T8200-6-6523/01SD

Agent de Projet: / Project Officer: BARBARA A. SMITH

No. de Commande: / Requisition No.: T8200-6-6523

No. du Centre de Responsabilité: / Responsibility Centre No.: 257140

No. de Révision: / Amendment No.:

ACHEMINER VERS ROUTE TO (Nom/Name)	RESPONSABILITÉ RESPONSIBILITY	ACTION	REÇU RECEIVED Date	REÇU RECEIVED Init.	ACHEMINÉ FORWARDED Date	ACHEMINÉ FORWARDED Init.
	Agent de Projet Project Officer B. Smith	Préparer & annexer Prepare & attach: Form. IRC 09-0181 (1)			26/7/87	BAS
L. Suen	Chef de Division Division Head	Examen & signature (accessible) Review & sign (releasable)	28/8	AQ	28/8	AQ
	ou/or EDTDC EDTDC	Examen & signature (non-accessible) Review & sign (non-releasable)				
S. DaveTuy	Fichier Central Records Office	— Expédition des rapports aux biblio. Expedite reports to libraries — Ret. à l'A.P.: Return to P.O.: Form IRC Cop. #3 & 4 (3)	31/08/87	mb	31/08/87	mb
B. Smith	Agent de Projet Project Officer	Préparer & annexer/Prepare & attach: — Form. CDT/TDC 79-010 (2) Annexer/Attach: — Form. IRC 09-0181 Cop. #3 (3)	31/12/87	[illegible]	9/12/87	[illegible]
L. Suen	Chef de Division Division Head	Examen & signature Review & sign (Envoyer au dossier — Form. IRC 09-0181 Cop. #3) (Send to file — Form IRC 09-0181 Cop. #3) (3)	10/12/87	[illegible]	10/12	AQ
N.E. Rudback	EDTDC EDTDC	Examen & signature Review & sign			11/12	NER
A. Sidhom	Agent-Bud. & Fin. Bud. & Fin. Off.	Examen & traitement Review & process				

Note:
(1) Seulement requis pour projets où les termes du contrat exigent un rapport écrit.
Only required for projects where terms of contract specify a written report.

(2) Nécessaire pour tous les projets.
Required for all projects.

(3) Les initiales de l'expéditeur et la date d'expédition des rapports à IRC, Ottawa, et la Bibliothèque du CDT doivent être indiquées par le F.C.
Should include sender's initials and date on which Records Office sent reports to IRC, Ottawa and TDC Library.

CDT/TDC 79/015 Rev. 07-86

APPENDIX G

Transportation Development Centre (TDC)

Centre de développement des transports (CDT)

Certificate of Acceptance
Certificat d'acceptation

Contract Title / Titre du contrat	ERGO ASSESSMENT MODIFIED VANS	TDC Project No. / N° de projet CDT	
		TDC Contract No. / N° de contrat CDT	6701
Contractor: / Contractant:	WEST PARK RESEARCH	TDC File No.: / N° de dossier CDT:	D1450-103-76
Project Officer: / Agent de projet:	BARBARA A. SMITH	DSS or TC Contract No.: / N° de contrat MAS ou TC:	T8200-6-6523/01SD
Responsibility Centre No.: / N° de centre de responsabilité:	257140	Requisition No.: / N° de commande:	T8200-6-6523

This is to certify that the above contract has been completed in accordance with the terms and conditions of the contract/agreement.

Ceci est pour certifier que le contrat ci-dessus a été complété en conformité avec les termes et conditions du contrat/accord.

The final reports and/or any other deliverables have been received and found satisfactory. Authorization is hereby granted to:

Les rapports finals et/ou tout ce qui se rattache au contrat ont été reçus et jugés satisfaisants. L'autorisation est accordée par le présent certificat de:

a) pay the final invoice on receipt (contracts other than DSS) ☐

a) payer la facture finale sur réception (contrats autres que ceux du MAS)

b) release the holdback on receipt of Claim for Progress Payment (DSS contracts) ☒

b) faire la remise de la retenue sur réception de la demande de paiement périodique (contrats du MAS)

Other comments:

Autres observations:

The requirements of the contract have been met. Fifty copies of the final report, TP 8452E, have been received.

Prepared by/Préparé par:		Project Officer/Agent de projet	
Signature:	Barbara A. Smith	Barbara A Smith	Date: August 28/87
Recommended by/Recommandé par:		Division Head/Chef de division	
Signature:	Ling Suen	Suen	Date: Dec 11/87
Approved by/Approuvé par:		EDTDC	
Signature:	N.E. Rudback	N.E. Rudback	Date: Dec 11/87

CDT/TDC 79-010 REV. 12/82

Supply and Services Canada | Approvisionnements et Services Canada

Service and Professional Services Directorate | Direction générale des sciences et des services professionnels

Ottawa, Canada
K1A 0S5

CONTRACT PERFORMANCE EVALUATION REPORT 9 50
RAPPORT D'ÉVALUATION DE L'EXÉCUTION DU CONTRAT

SECTION 1

DSS CONTRACT NO - N° DU CONTRAT MAS	SERIAL NO - N° DE SÉRIE	CONTRACT VALUE - VALEUR DU CONTRAT $
14SD.T8200-5-5562	OSD85-00272	320,641.

CONTRACT TITLE - TITRE DU CONTRAT	CONTRACTOR - ENTREPRENEUR
Winter testing and passenger demonstration of WCSS railbus	UTDC

SECTION 2

EVALUATION BY SCIENTIFIC AUTHORITY - ÉVALUATION PAR L'AUTORITÉ SCIENTIFIQUE

1. ALL DELIVERABLES (DISCLOSURES, REPORTS, PROTOTYPES) HAVE BEEN;
TOUS LES PRODUITS À LIVRER (DIVULGATIONS, RAPPORTS, PROTOTYPES) ONT ÉTÉ;

RECEIVED - REÇUS ☑ YES OUI ☐ NO NON

IF YES, GIVE DATE - SI OUI, INDIQUER LA DATE ▶ 21 May/87

ACCEPTED - ACCEPTÉS ☑ YES OUI ☐ NO NON

2. HAVE ALL CROWN ASSETS BEEN DELIVERED / DISPOSED OF AS REQUIRED BY THE TERMS OF THE CONTRACT? I.E.;
LES BIENS DE LA COURONNE ONT-ILS TOUS ÉTÉ LIVRÉS / ALIÉNÉS SELON LES MODALITÉS SPÉCIFIÉES DANS LE CONTRAT? SOIT;

	YES OUI	NO NON	N/A S.O.
EQUIPMENT PURCHASED WITH CONTRACT FUNDS BY THE CONTRACTOR TO CONDUCT THE WORK, OR; LE MATÉRIEL ACQUIS PAR L'ENTREPRENEUR POUR EXÉCUTER LES TRAVAUX AVEC LES FONDS PRÉVUS AU CONTRAT, OU;	☑	☐	☐
EQUIPMENT PROVIDED ON A LOAN BASIS TO THE CONTRACTOR LE MATÉRIEL PRÊTÉ À L'ENTREPRENEUR	☑	☐	☐

3. ARE YOU SATISFIED WITH PERFORMANCE OF THE CONTRACTOR IN TERMS OF:
ÊTES-VOUS SATISFAIT DU RENDEMENT DE L'ENTREPRENEUR SOUS LES ASPECTS SUIVANTS:

	EXPECTATIONS - ATTENTES: EXCEEDED DÉPASSÉES	MET RESPECTÉES	NOT MET NON RESPECTÉES
A) ACHIEVEMENT OF OBJECTIVES; RÉALISATION DES OBJECTIFS;	☐	☐	☑
B) MANAGEMENT OF THE WORK; AND DÉROULEMENT DU TRAVAIL; ET	☐	☑	☐
C) QUALITY OF THE WORK? QUALITÉ DU TRAVAIL?	☐	☑	☐

COMMENTS (ON QUESTIONS 1, 2 & 3:) - COMMENTAIRES (SUR LES POINTS 1, 2 & 3:)

The contractor had a difficult project in view of the many interveners who were critical to achieving the objectives of the work but who were also not controllable by the contractor (eg. CN, CTC, INCO, insurance industry). This was a very non-conventional project in that it involved a private organization (UTDC) providing a rail passenger service.

4. AS A RESULT OF THIS WORK DO YOU FORESEE:
À LA SUITE DE CES TRAVAUX, PRÉVOYEZ-VOUS:

	YES OUI	NO NON	POSSIBLE
A) ANY SPIN-OFF BENEFITS IN TERMS OF NEW KNOWLEDGE OR INCREASED PRODUCTIVITY; DES RETOMBÉES AVANTAGEUSES, C'EST-À-DIRE L'ACQUISITION DE NOUVELLES CONNAISSANCES OU UN ACCROISSEMENT DE LA PRODUCTIVITÉ:	☐	☐	☑
B) ANY PATENTABLE TECHNOLOGY; OR DES PROCÉDÉS TECHNIQUES BREVETABLES; OU	☐	☑	☐
C) ANY FOLLOW-ON WORK? DES TRAVAUX COMPLÉMENTAIRES?	☐	☐	☑

SEE REVERSE - VOIR AU VERSO

Canada

5. WILL A COPY OF THE REPORT BE
EST-CE QU'UN EXEMPLAIRE DU RAPPORT SERA

A) SENT TO NRC/CISTI (CANADIAN INSTITUTE OF SCIENTIFIC AND TECHNICAL INFORMATION), OR
REMIS AU CNR/CISTI (INSTITUT CANADIEN DE L'INFORMATION SCIENTIFIQUE ET TECHNIQUE), OU — ☑ YES OUI ☐ NO NON

B) MADE AVAILABLE TO THE PUBLIC VIA YOUR DEPARTMENT?
DIFFUSÉ AUPRÈS DU PUBLIC PAR L'ENTREMISE DE VOTRE MINISTÈRE? — ☑ YES OUI ☐ NO NON

6. ARE YOU GENERALLY SATISFIED WITH THE SERVICES PROVIDED BY THE SCIENCE AND PROFESSIONAL SERVICES DIRECTORATE IN TERMS OF:
ÊTES-VOUS SATISFAIT EN GÉNÉRAL DES SERVICES FOURNIS PAR LA DIRECTION GÉNÉRALE DES SCIENCES ET DES SERVICES PROFESSIONNELS SOUS LES ASPECTS SUIVANTS;

A) TIMELINESS
RESPECT DES DÉLAIS — ☑ YES OUI ☐ NO NON

B) CONTRACT MANAGEMENT; AND
GESTION DU CONTRAT; ET — ☑ YES OUI ☐ NO NON

C) RELATIONSHIPS?
BONS RAPPORTS? — ☑ YES OUI ☐ NO NON

COMMENTS / SUGGESTIONS (TO IMPROVE SERVICES, WOULD BE APPRECIATED) – COMMENTAIRES / SUGGESTIONS (POUR AMÉLIORER LES SERVICES, SERAIENT APPRÉCIÉS)

SCIENTIFIC AUTHORITY – L'AUTORITÉ SCIENTIFIQUE

Mr. S.Vespa

SIGNATURE ▶ Sesto Vespa

DATE June 6/87

Government of Canada | Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / A	N.E. Rudback
cc:	R.R. Mayes J. Gaum P. Hallett
FROM / DE	L. Suen

SECURITY - CLASSIFICATION - DE SÉCURITÉ	
OUR FILE — N / RÉFÉRENCE	D1450-103-76
YOUR FILE — V / RÉFÉRENCE	
DATE	December 10, 1987

APPENDIX G-12

SUBJECT / OBJET: Project Completion - Ergonomic Evaluation of a Modified Full Sized Ford Van and a Modified Chrysler Minivan for Disabled Drivers

This project was initiated in late 1985 when the Road Safety Directorate tasked TDC to carry out an ergonomic evaluation of a modified standard van and a modified minivan for disabled drivers. The work was carried out by West Park Research who had previously carried out the ergonomic evaluation of the Elswick vehicle. Because of delays in modifications to the minivan the actual work began in August 1986 and was completed a year later. The total cost was $50,230.00. The Project Officer was Barbara Smith.

The objectives of the ergonomic evaluation were to assess the safety and the accessibility features of the vans and selected modification equipment.

Ten disabled drivers, representing a wide range of functional ability levels, performed a series of driving tasks in both vehicles, according to protocols developed by West Park.

A steering committee, comprised of Road Safety & TDC representatives, ergonomists, equipment manufacturers, vehicle converters and a driver educator, met at strategic intervals during the testing.

Principal Technical Results

Driving Tasks

The ingress/egress components of the driving tasks revealed two major difficulties with the full sized van:

- connecting with the wheelchair securement system when manoeuvring into driver's position
- steering wheel obstructing driver's position with some wheelchairs

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Because the wheelchair accessibile minivan is a new concept more emphasis was put on evaluating driving tasks in this vehicle. The following difficulties were identified:

- tight manoeuvring into driver's position - ameliorated by ascending the entrance ramp backwards
- fixed metal wheelchair footrests were an obstruction
- passenger restrain belts were difficult to attach

Safety Features

Wheelchair securement devices in both vehicles were from well established equipment manufacturers and once engaged performed well in normal driving conditions. The 3 point restraint belts (shoulder & lap) were correctly installed in the vehicles and once attached performed satisfactorily.

The manual backup system of the automatic Braun lift in the standard van could not be operated by a wheelchair driver.

A potential safety hazard of the minivan was that it was possible to drive the vehicle with the ramp in extended position. The ramp surface did not provide adequate traction when wet.

Subjects were satisfied with the driveability of both vehicles, but preferred the minivan overall.

Implications and Intended Use

This is the first time self-drive vans for the disabled have undergone rigorous ergonomic evaluations. Observations and testing results will assist vehicle converters to better understand and improve modifications to benefit disabled drivers in terms of comfort and safety.

The results will also assist driver evaluators to better assess the functional abilities of potential drivers and to prescribe suitable adaptive aids and vehicle modifications.

The results, by pointing out the potential hazards and safety issues, will impact on the development of standards for modified vehicles operated by disabled drivers. At present there are no standards or regulations for self-drive accessible vehicles, only for vehicles used to transport disabled persons.

Future Action

The Road Safety Directorate hopes to continue ergonomic evaluations of vehicles and adaptive equipment used by and for disabled drivers and passengers. It is proposed that TDC accept tasking of future work in this area.

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The planned crash test of the minivan was carried out at the T.C. Test Centre. A report documenting the results is in publication.

Copies of the ergonomic evaluation report will be distributed to all concerned individuals and organizations.

Ling Suen

LS/BAS/gk